TM 11-5506

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

RADIO SET

AN/FRC-6

DEPARTMENT OF THE ARMY • *MARCH 1949*

TECHNICAL MANUAL

RADIO SET AN/FRC–6

CHANGES
No. 1

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *1 March 1951*

TM 11–5506, 14 March 1949, is changed as follows:

Change Radio Set AN/FRC–6 to Radio Set AN/FRC–6(*) in the following places in the manual:

Frontispiece.
Page 1, paragraph 1, line 2.
Page 1, paragraph 3, line 1.
Page 1, figure 2, caption.
Page 2, paragraph 5, line 1.
Page 3, paragraph 7, line 1.
Page 4, paragraph 9, line 10.
Page 4, paragraph 10, line 1.
Page 5, figure 4, caption.
Page 6, paragraph 12, line 1.
Page 6, paragraph 13, line 2.
Page 8, figure 5, caption.
Page 14, figure 11, caption.
Page 18, paragraph 24*c*, lines 5 and 13.
Page 21, paragraph 26, line 6.
Page 26, paragraph 31, line 2.
Page 27, paragraph 34, line 2.
Page 52, figure 46, caption.
Page 52, figure 47, caption.
Page 53, paragraph 65, line 1.
Page 53, paragraph 67, line 4.
Page 56, paragraph 72, line 3.
Page 57, paragraph 74, lines 3 and 9.
Page 88, paragraph 94, line 2.
Page 93, paragraph 1, line 2.
Page 96, paragraph 2, heading.

Change the letter A in the nomenclature of Console 559A/FRC–6, Radio Set Control 560A/FRC–6, Power Supply PP–420A/FRC–6, and Power Supply PP–421A/FRC–6 to (*) in the following places in the manual:

Page 1, figure 2.
Page 2, paragraph 3*b*, line 5.
Page 3, paragraph 6, lines 5 and 6.
Page 3, paragraph 8*b*, line 5.
Page 4, paragraph 8*c*, line 4.
Page 4, paragraph 8*d*, line 3.
Page 4, paragraph 9, heading.
Page 8, figure 5.
Page 11, figure 7, caption.
Page 18, figure 15, caption.
Page 20, figure 16, caption.
Page 34, figure 24, caption.
Page 34, paragraph 43, heading.
Page 45, figure 38, caption.
Page 45, paragraph 56, heading.
Page 46, figure 39, caption.
Page 46, paragraph 57, heading.
Page 46, figure 40, caption.
Page 47, figure 41, caption.
Page 48, paragraph 60, heading and line 1.
Page 48, figure 42, caption.
Page 48, figure 43, caption.
Page 49, figure 44, caption.
Page 50, figure 45, caption.
Page 58, paragraph 74*b*(3), lines 1, 2, and 6.
Page 58, paragraph 74*b*(5), lines 1, 3, and 12.
Page 59, paragraph 76*a*, heading.
Page 73, figure 62, caption.
Page 76, figure 65, caption.
Page 76, figure 66, caption.
Page 93, paragraph 2*c*, line 1.
Page 104, paragraph 2*d*, heading.
Page 104, paragraph 2*e*, heading.

Add "Rack MT–785/FRC–6A" after "Rack MT–658A/FRC–6", "Radio Transmitter T–264/FRC–6A" after "Radio Transmitter T–215A/FRC–6", "Radio Receiver R–368/FRC–6A" after "Radio Receiver R–276A/FRC–6" in the following places in the manual:

Page 1, figure 2.
Page 2, paragraph 3*b*, line 2.
Page 3, paragraph 6, lines 1, 3, and 4.
Page 3, paragraph 8, heading.
Page 3, paragraph 8*b*, line 3.
Page 4, paragraph 8*c*, line 2.
Page 17, figure 14, caption.
Page 28, figure 17, caption.
Page 28, paragraph 37, heading.
Page 29, figure 18, caption.
Page 29, paragraph 38*a*, line 2.
Page 30, figure 19, caption.

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Page 32, figure 22, caption.
Page 33, paragraph 42*a*, line 2.
Page 34, figure 25, caption.
Page 35, paragraph 44, heading.
Page 37, figure 28, caption.
Page 38, figure 29, caption.
Page 38, figure 30, caption.
Page 39, figure 31, caption.
Page 40, figure 32, caption.
Page 41, figure 33, caption.
Page 43, figure 35, caption.
Page 44, figure 36, caption.
Page 64, figure 54, caption.
Page 84, figure 74, caption.
Page 93, paragraph 2*d*, lines 1 and 2.
Page 97, paragraph 2*b*, heading.
Page 99, paragraph 2*c*, heading.

1. Purpose and Scope

* * * * *

c. (Added.) Official nomenclature followed by (*) is used to indicate all models of the components included in this technical manual. Thus, Radio Set AN/FRC–6(*) represents Radio Set AN/FRC–6 and Radio Set AN/FRC–6A; Radio Set Control C–560(*)/FRC–6 represents Radio Set Control C–560A/FRC–6 and Radio Set Control C–560B/FRC–6; Console C–559(*)/FRC–6 represents Console C–559A/FRC–6 and Console C–559B/FRC–6; Power Supply PP–420(*)/FRC–6 represents Power Supply PP–420A/FRC–6 and Power Supply PP–420B/FRC–6; and Power Supply PP–421(*)/FRC–6 represents Power Supply PP–421A/FRC–6 and Power Supply PP–421B/FRC–6.

In figure 2, Change ANTENNA to read: ANTENNA AS–421/FRC–6. Change HANDSET to read: HANDSET AND HANGER BOX.

In figure 3, Change the left-hand arrow heads for AN/FRC–6( ) and AN/VRC–2( ) so they rest upon the 30.0-mc line of the frequency spectrum chart.

11. Additional Equipment Required

Antenna AS–412/FRC–6 is * * * Radio Set AN/FRC–6. For detailed instructions on its installation, operation, and maintenance, refer to **TM 11–5023** which covers Antenna AS–412/FRC–6.

11.1. Differences in Models
(added)

The external appearances of the two models are identical. The major difference between Radio Set AN/FRC–6 and Radio Set AN/FRC–6A is the type of connectors used in the transmitter component and the antenna connections (figs. 10 and 10.1). Also, there are a few minor differences between the types and values of some of the circuit components. The over-all electrical characteristics are the same for both models.

13. Siting Equipment

* * * * *

d. When the console * * * for the console. **This cable must be completely shielded and away from all repeater coils or other transformers. This is necessary because a direct current is passed through these wires for operation of a relay at the transmitter.**

* * * * *

17. Installation of Rack

(fig. 6 **or 6.1**)

* * * * *

b. TRANSMITTER. Prepare the transmitter for mounting by inserting two Tubes JAN–807 in sockets for V–107 and V–108, and two Tubes JAN–5U4G in sockets for V–109 and V–110 (fig. 73 **or 73.1**). The tubes are * * * the nuts securely.

* * * * *

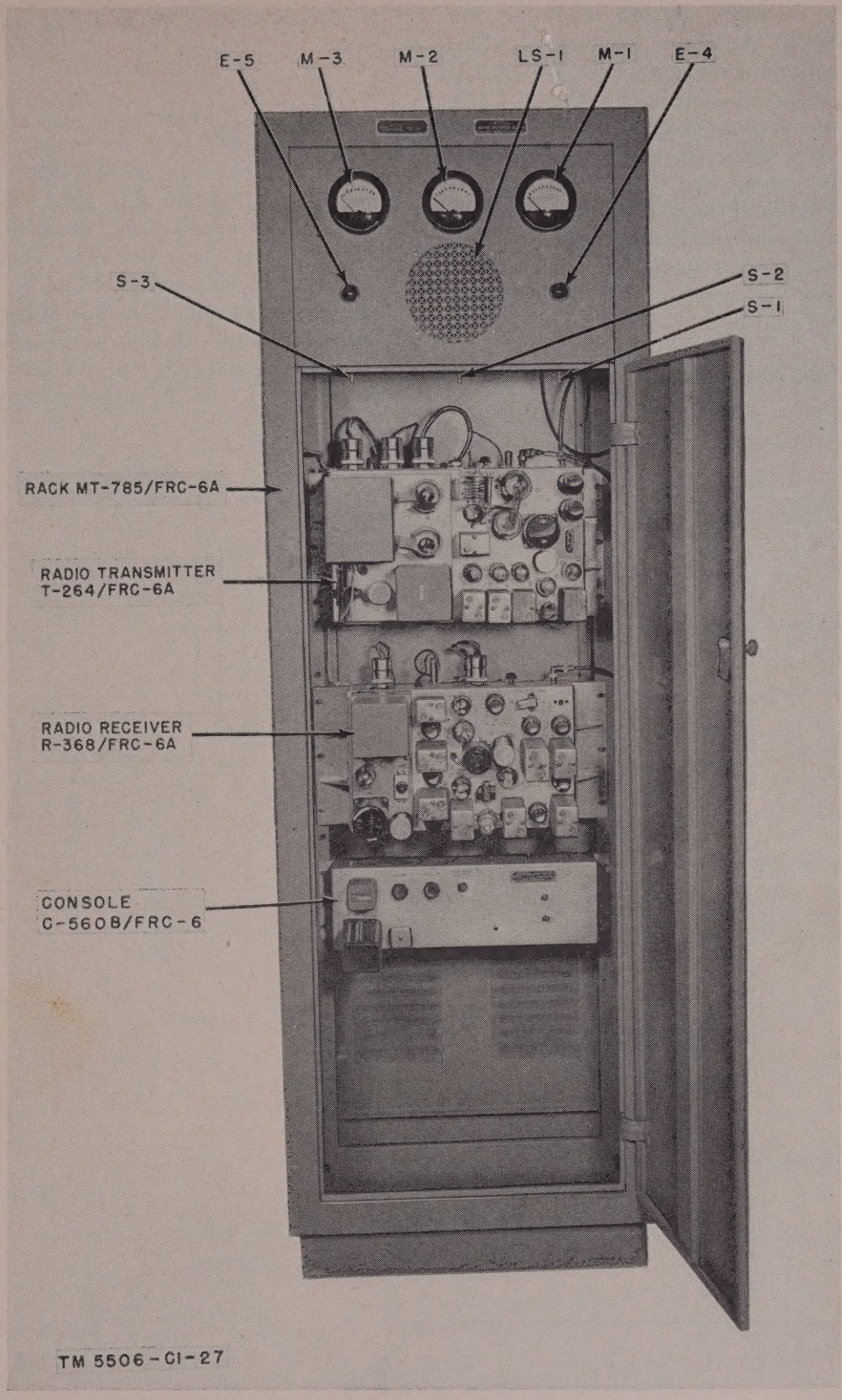


Figure 6.1 (Added.) *Rack MT-785/FRC-6A, component layout.*

e. Antenna Fittings (**fig. 10 or 10.1**). **For Radio Set AN/FRC–6, mount** the bracket which holds antenna **Radio Frequency Jack** UG–22B/U and a length of 50-ohm Radio Frequency Cable RG–8/U on the vertical channel inside the rack on the right side, facing the equipment from the front. Screws, nuts, and * * * on the bracket. **For Radio Set AN/FRC–6A, IPC No. 35500 is used in place of Radio Frequency Jack UG–22B/U, and 72-ohm Radio Frequency Cable RG–59/U is used in place of Radio Frequency Cable RG–8/U (fig. 10.1).**

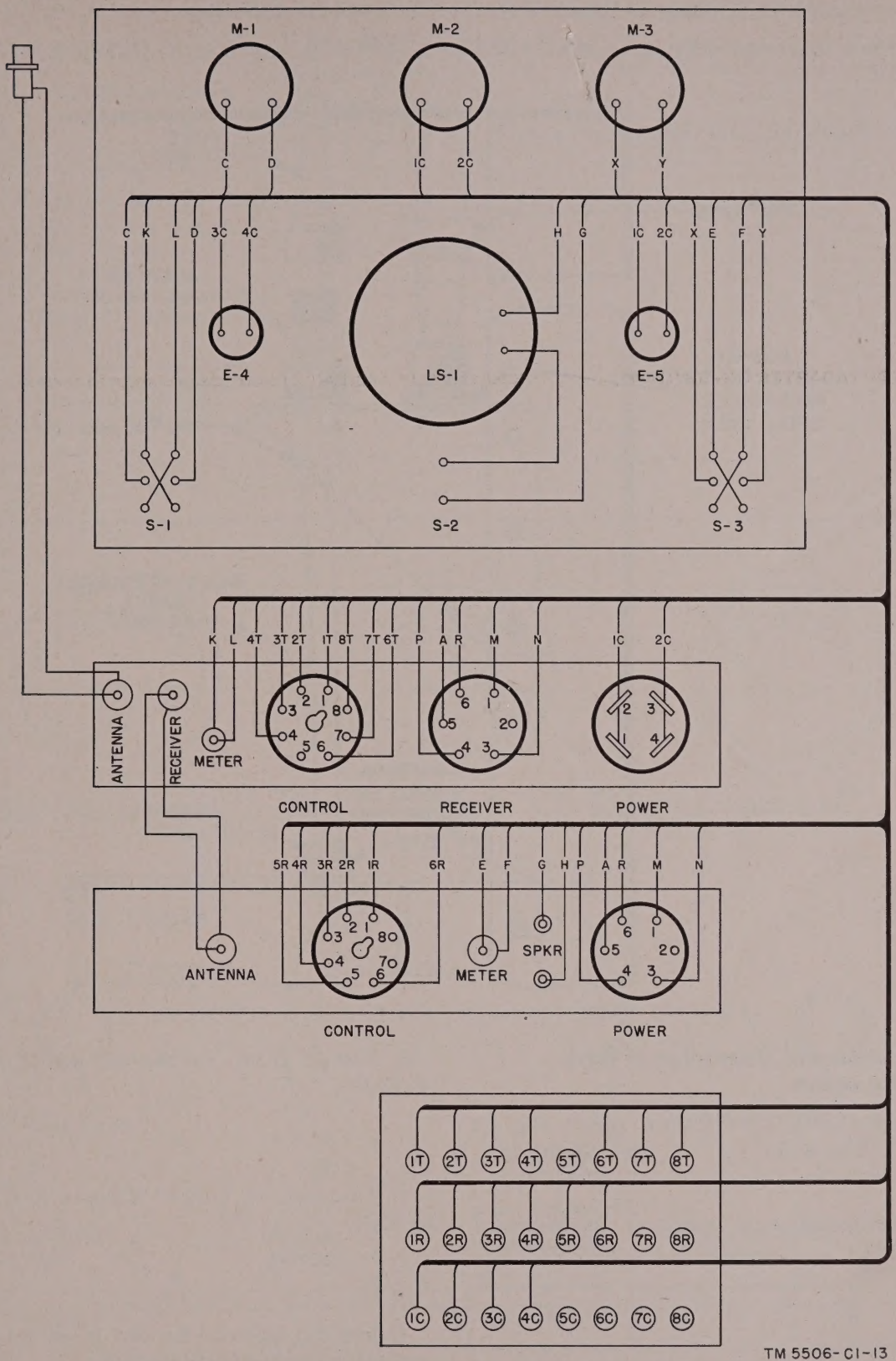
20. Connections and Interconnections

* * * * *

a. Interconnections in Rack (fig. 9 **or 9.1**).

* * * * *

c. Antenna Connection (fig. 10 **or 10.1**). Provision is made * * * coaxial transmission line. When Antenna AS–412/FRC–6 is to be used, connect Adapter UG–146/U to the **appropriate** antenna **adapter** (**fig. 10 or 10.1**) mounted inside of the rack near the top. Then attach the * * * it down tight. When a ⅞-inch gas-filled line is used, solder the line to **the appropriate adapter** (**fig. 10 or 10.1**) in accordance with procedures outlined for the specific line used. Connect a heavy * * * other suitable ground.



* * * * *

Figure 9.1 (Added.) *Rack MT–785/FRC–6A, interconnections.*

Figure 10. Antenna connections for Radio Set AN/FRC–6.

In figure 10, change designation of ADAPTER UG–22B/U to read: RADIO FREQUENCY JACK UG–22B/U.

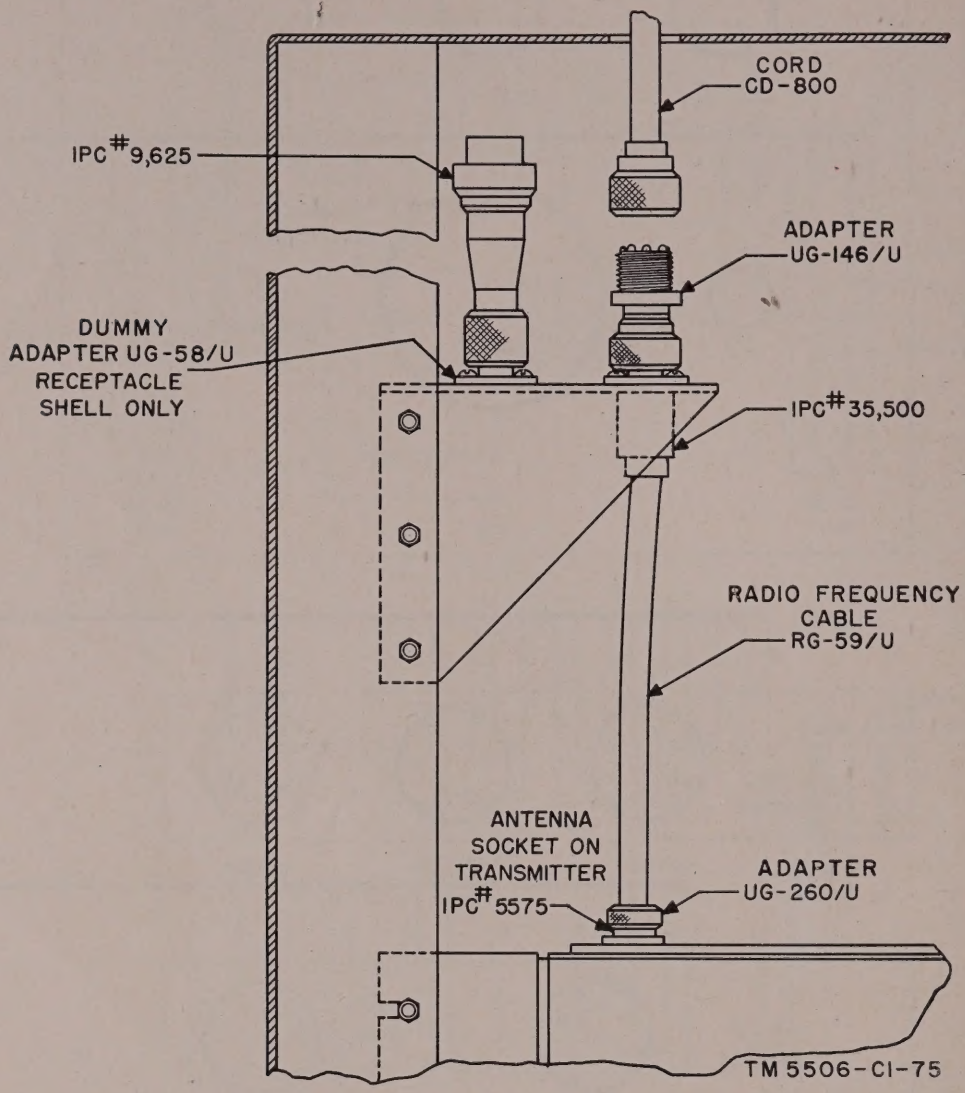


Figure 10.1 (Added.) *Antenna connections for Radio Set AN/FRC–6A.*

22. Location and Description of Rack Instruments

a. Receiver Tuning Meter (M–3) (fig. 12 **or 12.1**). This is the * * * at that setting.

METER SWITCH setting	Circuit element connected	Typical meter reading (with zero signal input and 110 volts line voltage)
* *	* *	*

Note. (Added.) For Radio Receiver R–368/FRC–6A, the meter reading for either setting 3 or 4 of the METER SWITCH is 15.

b. Power Line Voltmeter (M–2) (fig. 12 **or 12.1**).

* * * * *

c. Transmitter Tuning Meter (M–1) (fig. 12 **or 12.1**).

* * * * *

Delete the table at the end of paragraph 22*c* and substitute the following table:

METER SWITCH setting	Circuit element connected	Typical meter reading for Radio Transmitter T–215A/FRC–6	Typical meter reading for Radio Transmitter T–264/FRC–6A
1	Grid of V–101	28	18
2	Grid of V–104	29	25
3	Grid of V–105	43	14
4	Grid of V–106	15	7
5	Grids of V–107 and V–108	32	21
P. A	Plates of V–107 and V–108. *Note.* Throw meter reversal switch to forward position to obtain reading at this setting.	35	37
MOD	Control grids of V–102 and V–103.	38	17

d. GREEN PILOT LAMP (E–5) (fig. 12 **or 12.1**).

* * * * *

e. RED PILOT LAMP (E–4) (fig. 12 **or 12.1**).

* * * * *

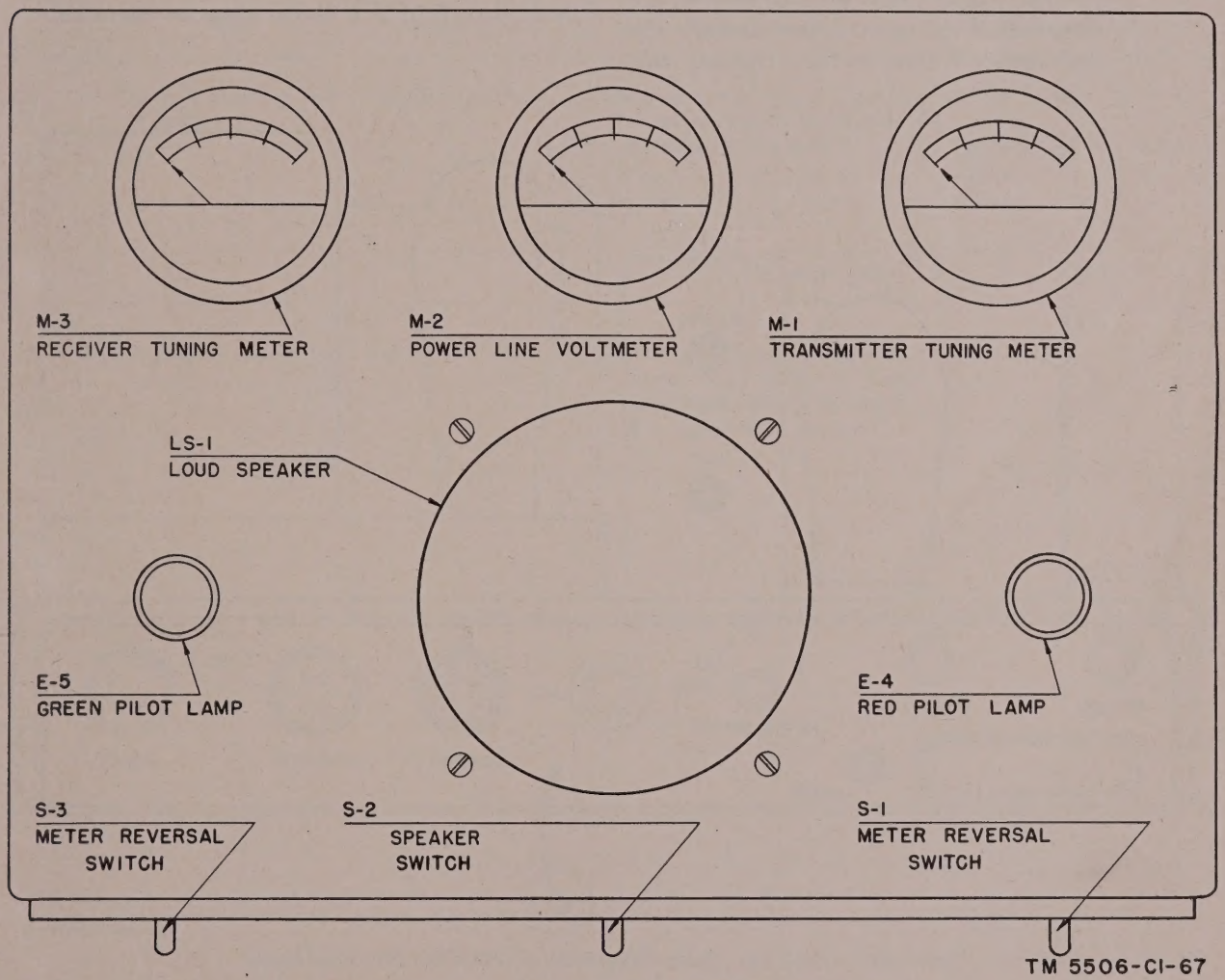


Figure 12.1 (Added.) *Rack MT–785/FRC–6A, meter speaker panel.*

23. Location and Description of Rack Controls

a. (Superseded.) Loudspeaker Switch (S–2) (fig. 12 or 12.1). In Radio Set AN/FRC–6, this is the left-hand toggle switch (S–2) (fig. 12) of the two located on the under side of the meter and speaker panel at the top of the door opening. In Radio Set AN/FRC–6A, this is the center toggle switch (fig. 12.1) of the three located on the under side of the meter and speaker panel. When in the off, or forward position, it serves to disconnect the loudspeaker.

b. (Superseded.) Meter Reversal Switches (S–1 and S–3) (fig. 12 or 12.1).

(1) In Radio Set AN/FRC–6, there is only one meter reversal switch. This is the right-hand toggle switch (S–1) (fig. 12) on the under side of the meter and speaker panel. It is used to reverse the direction of the current flow through the transmitter tuning meter. Operate this switch forward when the METER SWITCH is in the P. A. position. Normal position of this switch (S–1) for all other readings is to the rear.

(2) In Radio Set AN/FRC–6A, there are two meter reversal switches. Meter reversal switch S–1 (fig. 12.1) is identical to the one described in (1) above. The other switch is meter reversal switch S–3 (fig. 12.1). This is the left-hand toggle switch on the under side of the meter and speaker panel. It is used to reverse the direction of the current through the receiver tuning meter when checking the discriminator circuit.

c. Transmitter Meter Switch (S–101) (fig. 13 **or 13.1**). This switch, located * * * the transmitter (par. 22*c*). When the switch is set to the P. A. position, the meter reversal switch (**S–1**) described in *b* above must be operated.

* * * * *

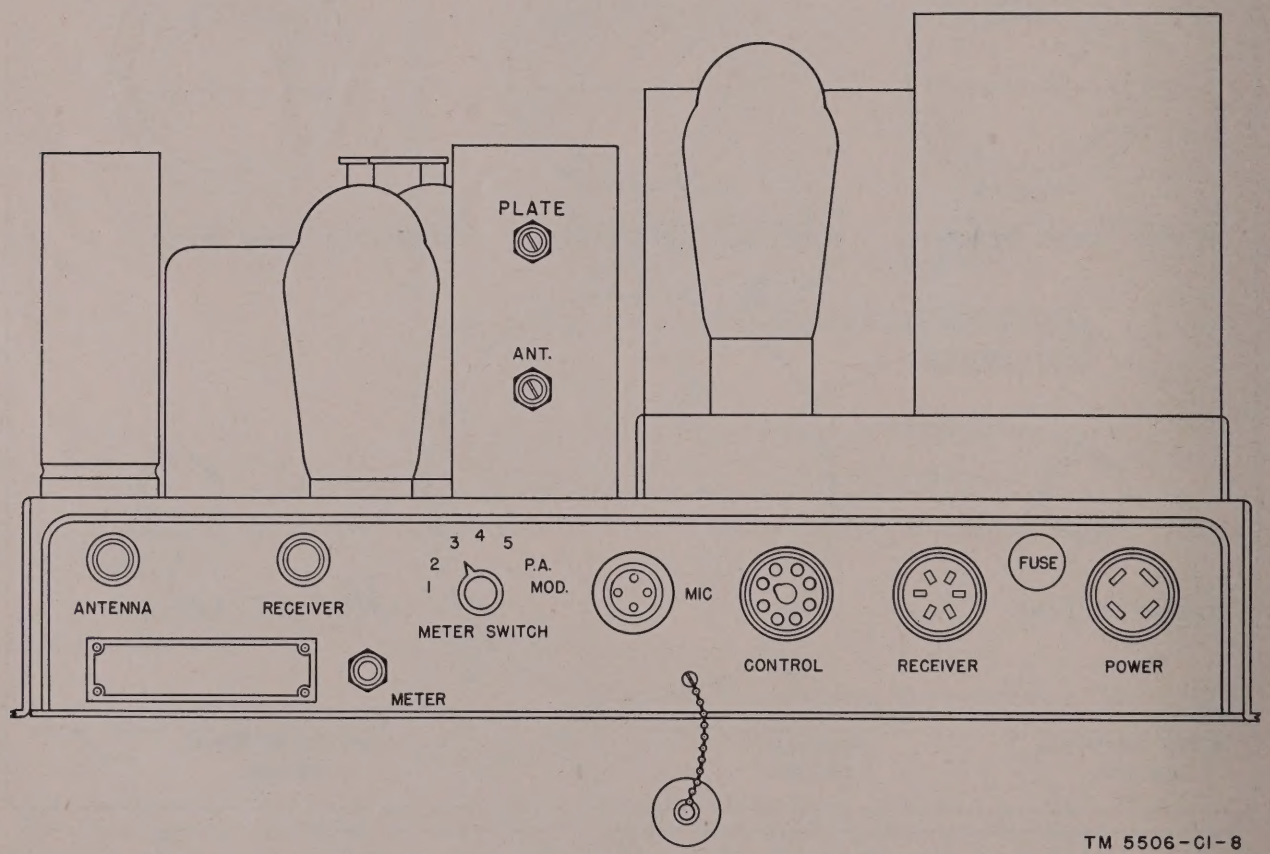


Figure 13.1 (Added.) *Radio Transmitter T–264/FRC–6A, panel layout.*

26. Operation Procedure

* * * * *

a. Rack Receiver Check.

* * * * *

(8) Rotate the receiver * * * the meter indications. Check the indications obtained against those obtained during initial alinement, or, if necessary, against the typical readings in the table of paragraph **22*a***.

* * * * *

c. Rack Transmitter Check.

(1) Throw the meter reversal switch (**S–1**) to the forward position toward the operator.

* * * * *

(4) Throw the meter reversal switch (**S–1**) to the rear position.

* * * * *

(8) With the transmitter METER SWITCH in the P. A. position and with the meter reversal switch (**S–1**) operated forward toward the operator, repeat the procedure outlined in (6) above.

* * * * *

29. Equipment Performance Checklist

	Item No.	Item	Action or condition	Normal indications	Corrective measures
START	1	External power switch (rack).	Operate to ON_____	Click of power relay in receiver is heard (**in Radio Receiver R–276A/FRC–6 only**). Green * * * lights. Center * * * volts.	Check power * * * fuses. Replace * * * seated. Check * * * connections.
	*	*	*	*	*
	*	*	*	*	*
	*	*	*	*	*
STOP	13	External power switch (rack).	Operate to OFF_____	Green pilot lamp extinguished. Power relay clicks (**in Radio Receiver R–276A/FRC–6 only**). No **output** from speaker.	

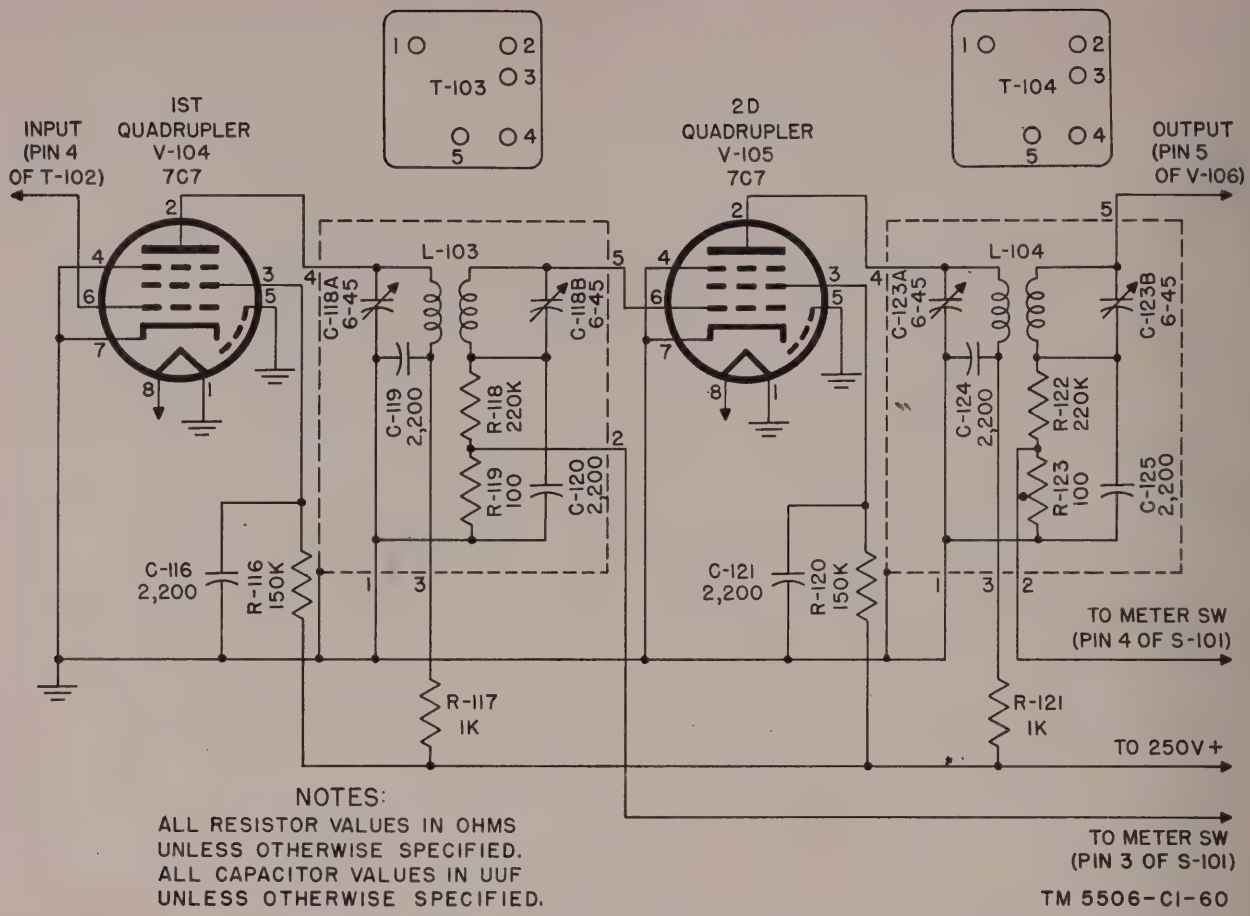


Figure 21.1 (Added.) *Radio Transmitter T–264/FRC–6A, functional diagram of first and second quadruplers.*

40. First and Second Quadruplers

(fig. 21 **or 21.1**)

* * * * *

a. Frequency-modulated r-f * * * the tube socket. The output of V–104 is applied across a tuned plate circuit in T–103 made up of an inductance resonated at four times the crystal frequency by tuning capacitor C–118. **(For Radio Transmitter T–264/FRC–6A, the tuned plate circuit in T–103 is tuned by capacitor C–118A).** Plate voltage is * * * quadrupler tube (V–105). **For Radio Transmitter T–215A/FRC–6, grid** bias for V–105 is obtained from R–118 in series with meter circuit resistor R–119. **For Radio Transmitter T–264/FRC–6A, the first quadrupler tube (V–104) is coupled to the second quadrupler tube (V–105) through the mutual inductance of the primary and secondary of L–103 resonated by C–118A and C–118B, respectively.** By using R–119 * * * bypassed by C–120.

b. The tuned plate * * * ground by C–121. **For Radio Transmitter T–215A/FRC–6, capacitor** C–122 couples the plate circuit of V–105 to the control grid of the doubler tube (V–106). **For Radio Transmitter T–264/FRC–6A, the second quadrupler tube (V–105) is coupled to the doubler (V–106) through the mutual inductance of the primary and secondary of L–104 resonated by C–123A and C–123B, respectively.** Bias for the * * * bypassed by C–125.

Note (Added). For Radio Transmitter T–264/FRC–6A, the plate circuit is tuned by C–123A.

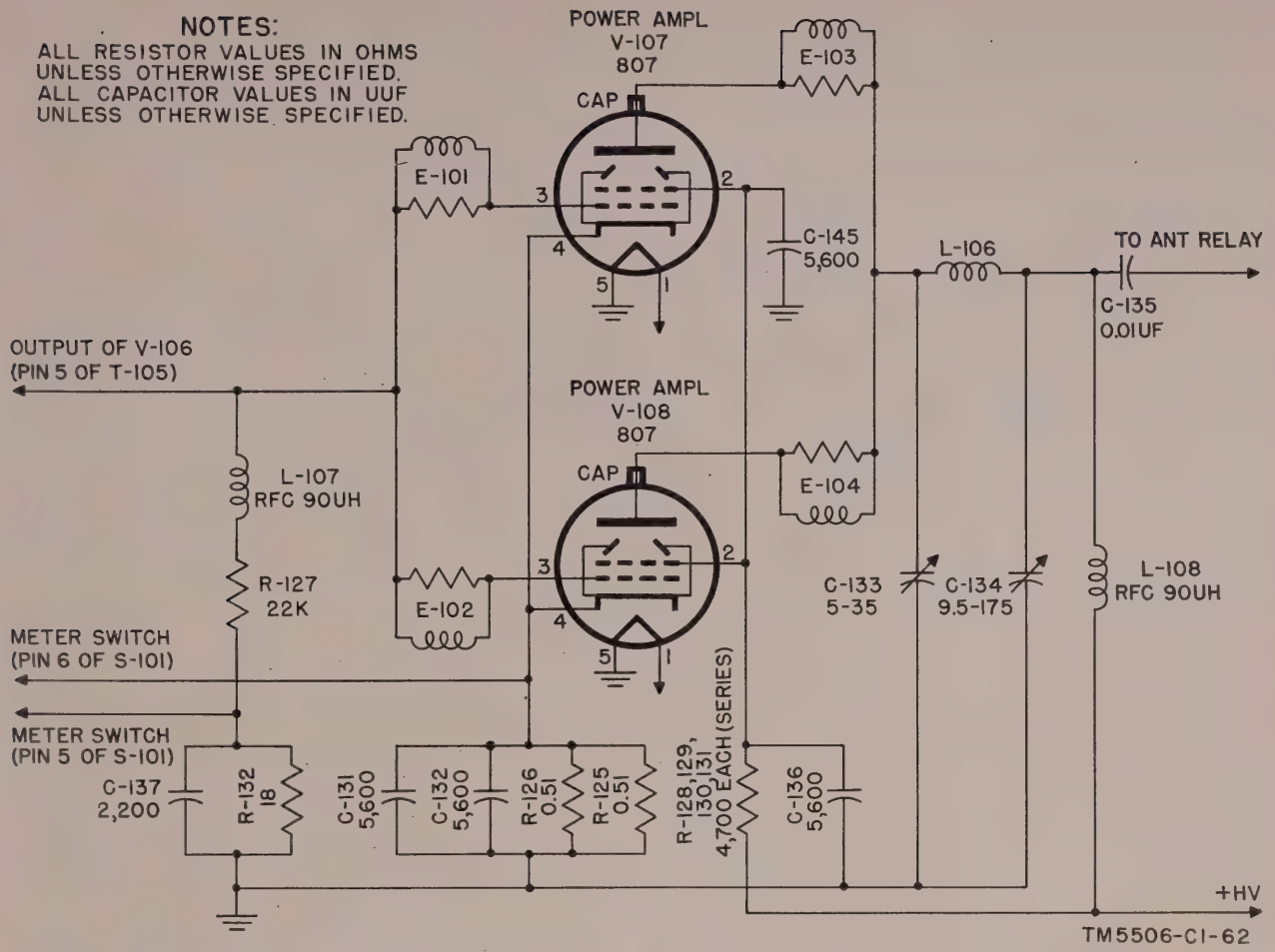


Figure 23.1 (Added.) *Radio Transmitter T–264/FRC–6A, functional diagram of power amplifier.*

42. Power Amplifier

(fig. 23 **or 23.1**)

* * * * *

b. The plate circuit * * * blocking capacitor C–135. **In Radio Transmitter T–264/FRC–6A, the screen grids of V–107 and V–108 are bypassed to ground by capacitors C–136 and C–145.**

43. Power Supply PP–420A/FRC–6

(fig. 24)

* * * * *

a. T–108 is a * * * 0–102, and 0–103.

Note (Added). Relay 0–101 is not part of Radio Transmitter T–264/FRC–6A.

* * * * *

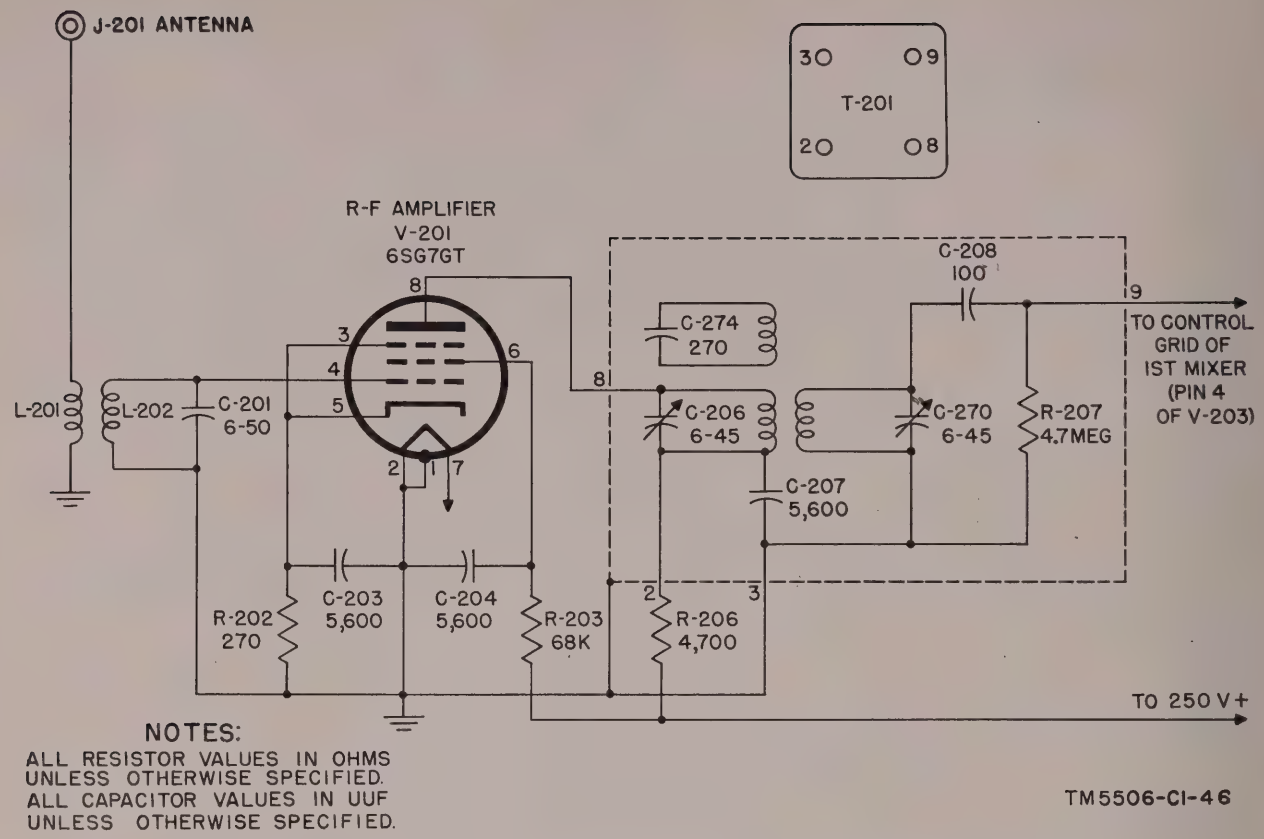


Figure 26.1 (Added.) *Radio Receiver R–368/FRC–6A, functional diagram of r-f amplifier.*

45. R-f Amplifier

(fig. 26 **or 26.1**)

a. Inductive coupling between * * * trimmer capacitor, C–206. Coupling to the following stage is through C–208 to the control grid (pin 4) of V–203 **for Radio Receiver R–276A/FRC–6. For Radio Receiver R–368/FRC–6A, V–201 is coupled to V–203 through the mutual inductance of the primary and secondary coils of T–201. The secondary is resonated by capacitor C–270. The tertiary winding, which is resonated by capacitor C–274, is a wave trap to allow rejection of unwanted frequencies.**

b. Normal grid bias * * * bypassed by C–203. **For Radio Receiver R–276A/FRC–6, additional** grid leak bias is built up across R–201 when large values of signal current are induced in the antenna. **For Radio Receiver R–276A/FRC–6, capacitor** C–202 bypasses the r-f currents from the lower end of L–202 to the cathode. Screen grid voltage * * * V–203 and ground.

46. H-f Oscillator

(fig. 27 **or 27.1**)

* * * * *

b. The plate circuit * * * coupling capacitor C–209. **For Radio Receiver R–276A/FRC–6, to** determine the frequency of the crystal to be used, one of the following formulas should be applied:

* * * * *

(2) For channel frequencies between 37 and 40 mc subtract 4.3 mc and divide by 5. **For Radio Receiver R–368/FRC–6A, the harmonic output of the oscillator is coupled through the secondary coil of T–202, tuned by capacitor C–273 to the control grid of V–203 through capacitor C–209.**

Figure 27. ***Radio Receiver R–276A/FRC–6,*** *functional diagram of h-f oscillator.*

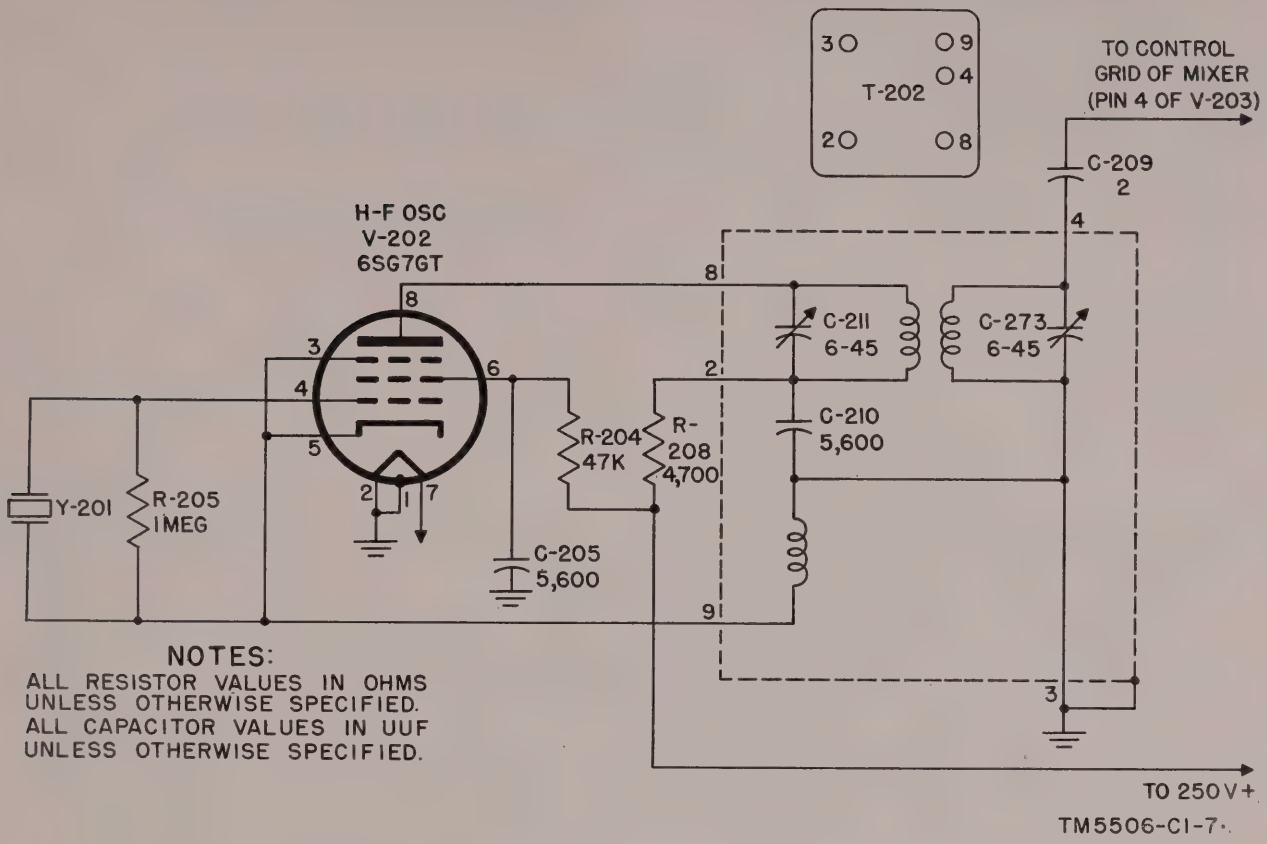


Figure 27.1 (Added.) *Radio Receiver R–368/FRC–6A, functional diagram of h-f oscillator.*

Figure 34. Discriminator response curve. ***For Radio Transmitter T–264/FRC–6A, 430 is 420, and 480 is 490.***

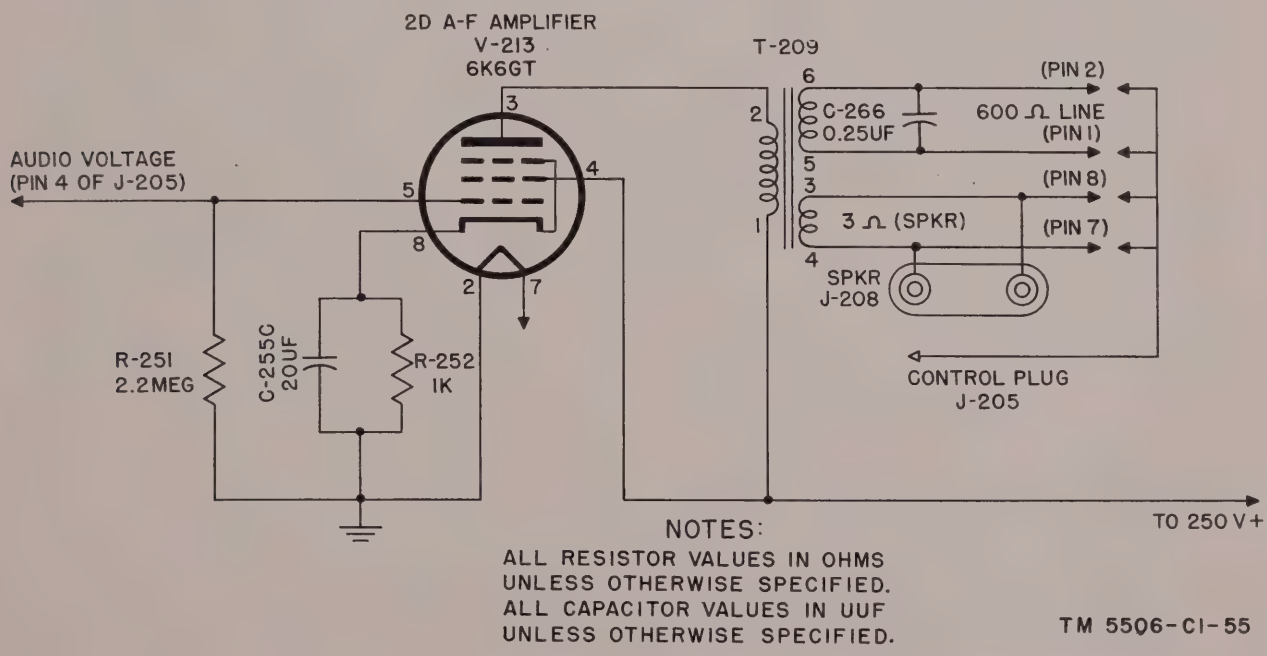


Figure 37.1 (Added.) *Radio Receiver R–368/FRC–6A, functional diagram of second a-f amplifier.*

55. Second A-f Amplifier

(fig. 37 **or 37.1**)

Second a-f amplifier * * * primary of T–209. Capacitor C–265 and reactor L–204 **(in Radio Receiver R–276A/FRC–6 only)** further reduce the high audo frequencies and improve the over-all frequency response of the output. T–209 has two * * * the frequency response.

64. Control Circuits

* * * * *

b. Transmit Condition (fig. 47).

* * * * *

66. Test and Repair Equipment

Signal Corps stock No.	Item	Used for	Remarks
*	*	*	*
3F4325–382	**Army-Navy Audio Oscillator TS–382A/U.**	**Transmitter and receiver audio tests.**	
*	*	*	*
3F1001–33	**R-f ammeter JAN type MR25W001RFAA.***	**Transmitter tuning.**	
3Z6007C3.1	**Resistor: fixed; 73-ohm ±5%; 100 W,** dummy antenna, Ohmite type D–100 73, or equal.*	Transmitter tuning.	To * * * testing.
*	*	*	*

* * * * * * *

69. Stripping and Adjusting

a. Rack. The only stripping * * * toward the front.

(1) *Meter and speaker panel.* To remove the * * * loudspeaker cut-off switch. **The meters in Rack MT–785/FRC–6A do not have lamp sockets.** Remove from each * * * is turned off. **The meters in Rack MT–785/FRC–6A do not have adjustments.**

* * * * *

74. Sectionalizing Trouble

* * * * *

b. Trouble-Shooting Aids.

(1) *Transmitter.*

Fig. No.	*Description*
*	*
78	Radio Transmitter T–215A/FRC–6, schematic diagram.
48. 1	**Radio Transmitter T–264/FRC–6A, top view.**
49. 1	**Radio Transmitter T–264/FRC–6A, bottom view.**
50. 1	**Power Supply PP–420B/FRC–6, bottom view.**
51. 1	**Radio Transmitter T–264/FRC–6A, tube socket voltage and resistance diagram.**
52. 1	**Radio Transmitter T–264/FRC–6A, TS–103, resistor-capacitor board diagram.**
52. 2	**Radio Transmitter T–264/FRC–6A, TS–104, resistor-capacitor board diagram.**
52. 3	**Radio Transmitter T–264/FRC–6A, TS–105 (front), resistor board diagram.**
52. 4	**Radio Transmitter T–264/FRC–6A, TS–105 (rear), resistor-capacitor board diagram.**
52. 5	**Radio Transmitter T–264/FRC–6A, TS–106, capacitor board diagram.**
52. 6	**Radio Transmitter T–264/FRC–6A, TS–107, resistor board diagram.**
78. 1	**Radio Transmitter T–264/FRC–6A, schematic diagram.**

(2) *Receiver.*

Fig. No.	*Description*
*	*
79	Radio Receiver R–276A/FRC–6, schematic diagram.
55. 1	**Radio Receiver R–368/FRC–6A, top view.**
56. 1	**Radio Receiver R–368/FRC–6A, bottom view.**
57. 1	**Power Supply PP–421B/FRC–6A, bottom view.**
58. 1	**Radio Receiver R–368/FRC–6A, tube socket voltage and resistance diagram.**
59. 1	**Radio Receiver R–368/FRC–6A, TS–202 (front), resistor-capacitor board diagram.**
59. 2	**Radio Receiver R–368/FRC–6A, TS–202 (rear), resistor-capacitor board diagram.**
60. 1	**Radio Receiver R–368/FRC–6A, connector resistor diagram.**
79. 1	**Radio Receiver R–368/FRC–6A, schematic diagram.**

(3) *Radio set control.*

Fig. No.	*Description*
*	*
80	Radio Set Control C–560A/FRC–6, schematic diagram.
63. 1	**Radio Set Control C–560B/FRC–6, terminal board resistance and voltage diagram.**

(4) *Meter and speaker panel.*

Fig. No.	*Description*
64	Radio Set AN/FRC–6, meter-speaker panel, rear view.
64.1	**Radio Set AN/FRC–6A, meter-speaker panel, rear view.**

(5) *Console.*

Fig. No.	*Description*
*	*
81	Console C–559A/FRC–6, schematic diagram.
67.1	**Console C–559B/FRC–6, bottom right view.**
68.1	**Console C–559B/FRC–6, bottom left view.**
69.1	**Console C–559B/FRC–6, tube socket voltage and resistance diagram.**
70.1	**Console C–559B/FRC, TS–402, resistor board diagram.**
70.2	**Console C–559B/FRC–6, TS–403 (front), capacitor board diagram.**
70.3	**Console C–559B/FRC–6, TS–403 (rear), capacitor board diagram.**
71.1	**Console C–559B/FRC–6, connector voltage and resistance diagram.**
81.1	**Console C–559B/FRC–6, relay 0–401, bottom view.**

* * * * *

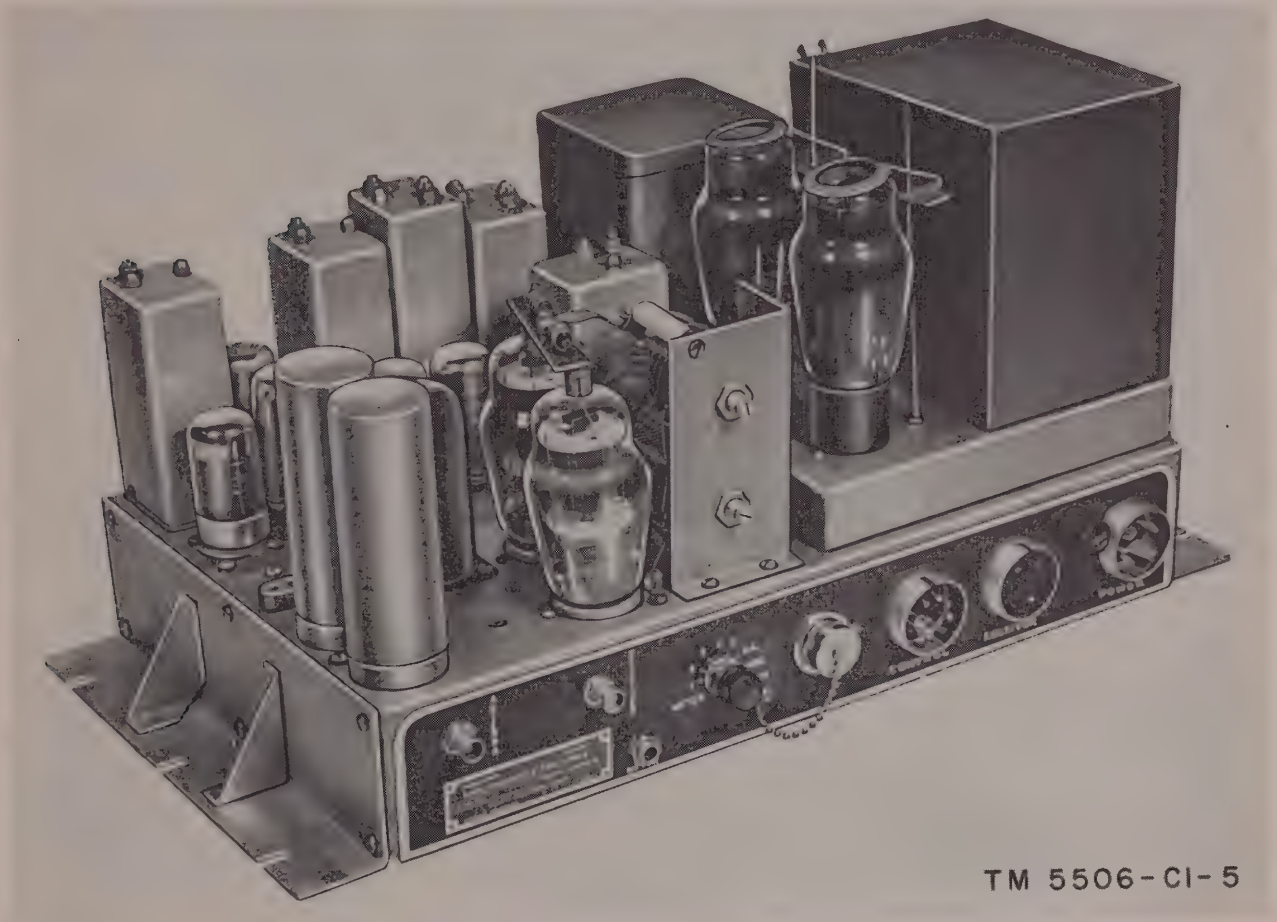


Figure 48.1 (Added.) *Radio Transmitter T–264/FRC–6A top view.*

76. Localizing Trouble in Transmitter

* * * * *

a. Power Supply PP–420A/FRC–6. Full technical information * * * be 470,000 ohms. If lower resistance is evident, then it will be necessary to look for a short in capacitor C–140, C–141, C–142, or C–143, the power supply, or **the resistor boards in the transmitter (figs. 52 and 53, or figs. 52.1, 52.2, 52.3, 52.4, 52.5, and 52.6).** The resistance readings on the power supply are indicated in figure 51 **or 51.1.** If the power * * * of the transmitter. This short can best be located by resistance measurement, using the data given in figure 51 **or 51.1.**

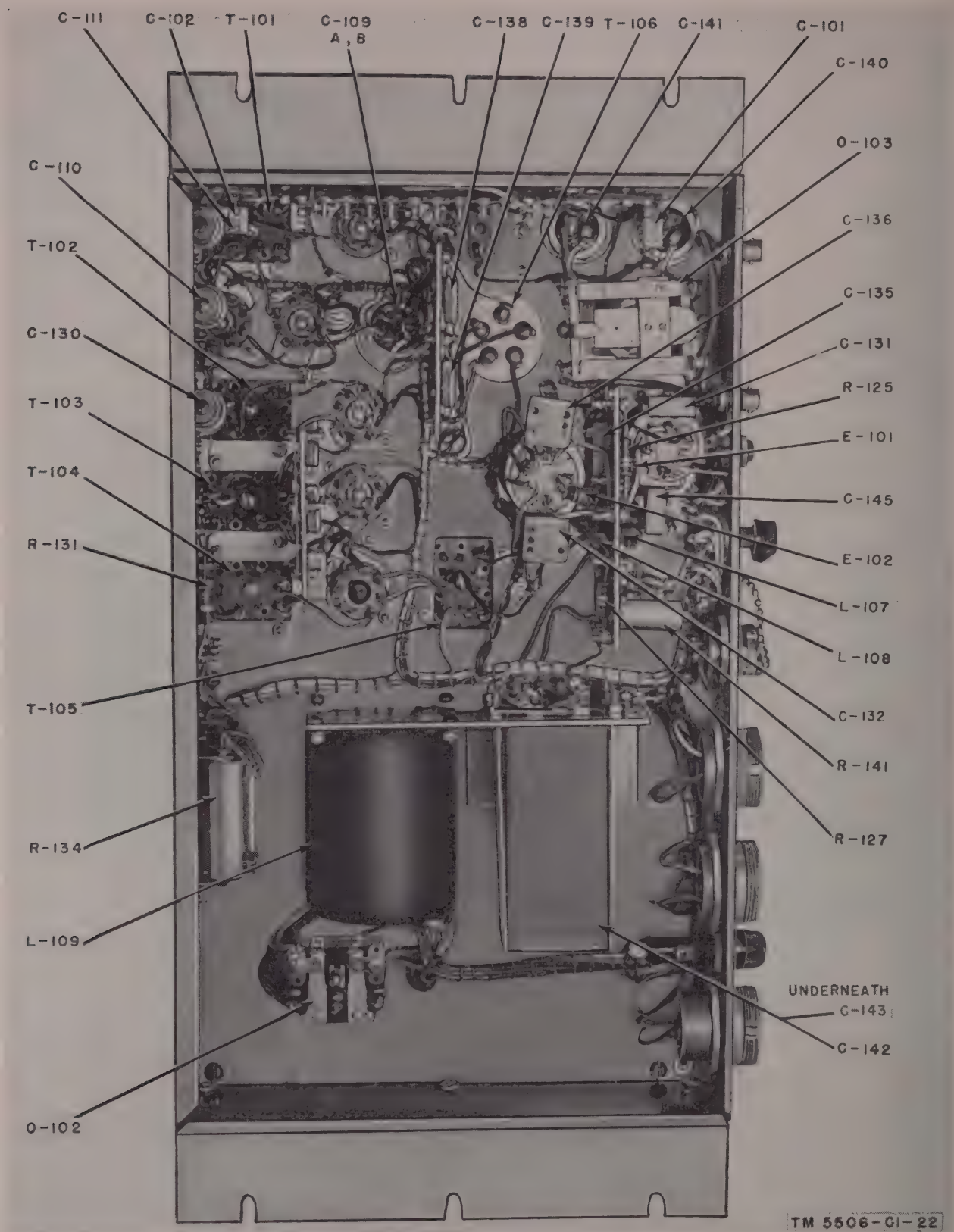


Figure 49.1 (Added.) *Radio Transmitter T-264/FRC-6A, bottom view.*

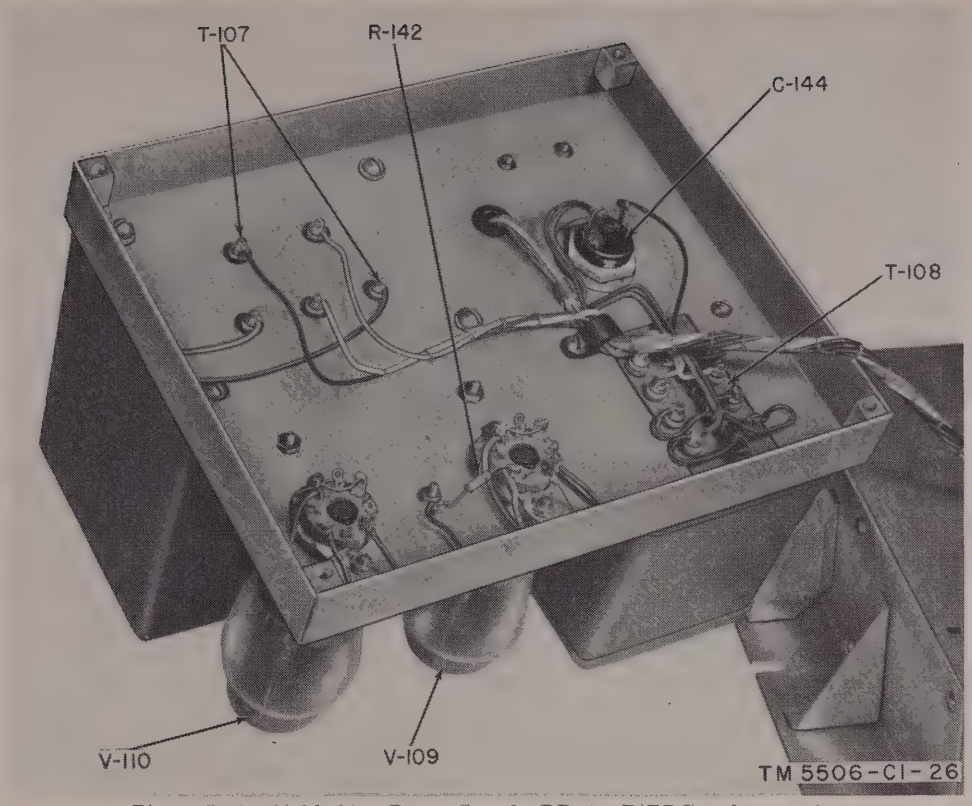


Figure 50.1 (Added.) *Power Supply PP–420B/FRC–6, bottom view.*

b. Oscillator. The technical information * * * right-hand meter (M–1):

(1) Press the press-to-talk * * * is not functioning. When the oscillator is properly tuned, this reading should be about 28 microamperes **for Radio Transmitter T–215A/FRC–6 and about 18 microamperes for Radio Transmitter T–264/FRC–6A.**

* * * * *

(4) If after the above operations, the oscillator fails to operate, it will be necessary to take voltage and resistance measurements, using data given in figure 51 **or 51.1.** Also check T–101 * * * partial schematic (fig. 18).

c. Modulator. Technical information on * * * tuned, resonate T–102. The normal meter reading should be about 29 microamperes **for Radio Transmitter T–215A/FRC–6 and about 25 microamperes for Radio Transmitter T–264/FRC–6A.** Trouble shooting the * * * accomplished as follows:

* * * * *

(2) Check voltage and resistance readings against those given in figure 51 **or 51.1.**

* * * * *

d. Quadruplers. Technical information on * * * and transformer T–104. **For Radio Transmitter T–215A/FRC–6 with** the METER SWITCH in position 3 and T–103 properly tuned to the correct harmonic, the meter should read approximately 43 microamperes. **For Radio Transmitter T–264/FRC–6A the above readings are 14 microamperes and 7 microamperes, respectively.** With the METER * * * identical, as follows:

* * * * *

(2) Make resistance and voltage measurements, using the data given in figure 51 **or 51.1.** Remember that failure * * * second quadrupler inoperative.

e. Doubler. Technical information on * * * and transformer T–105. With the METER SWITCH in position 5 and the doubler properly tuned, the meter should read approximately 32 microamperes **for Radio Transmitter T–215A/FRC–6, and approximately 21 microamperes for Radio Transmitter T–264/FRC–6A.** Failure to obtain * * * the quadrupler stages.

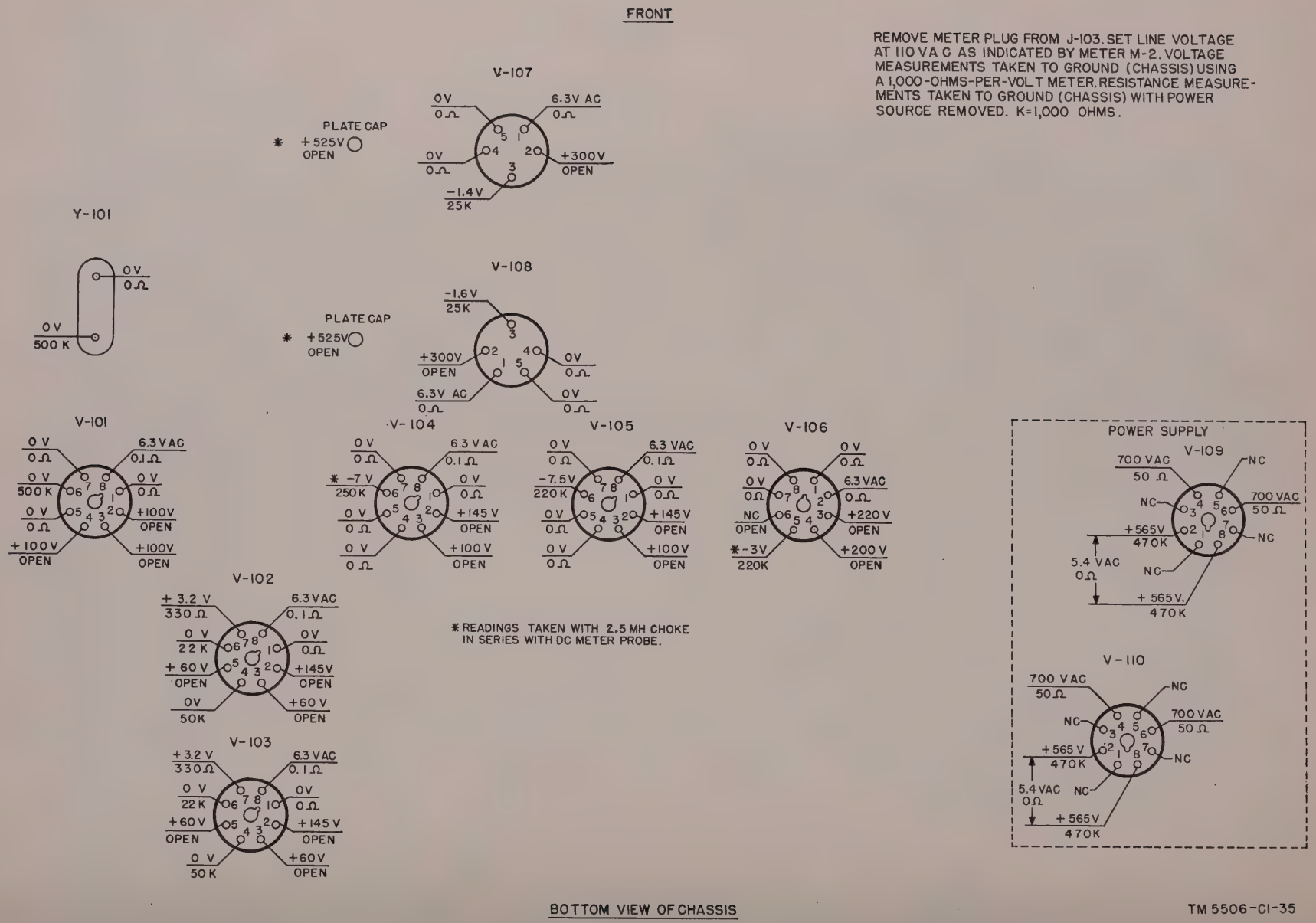


Figure 51.1 (Added.) *Radio Transmitter T-264/FRC-6A, tube socket voltage and resistance diagram.*

f. Power Amplifier. Technical information on * * * the P. A. position. When the power amplifier is properly resonated and loaded to the antenna or dummy load, the meter should read approximately 30 microamperes **for Radio Transmitter T–215A/FRC–6, and approximately 37 microamperes for Radio Transmitter T–264/FRC–6A.** If a dummy * * * in paragraph 89.

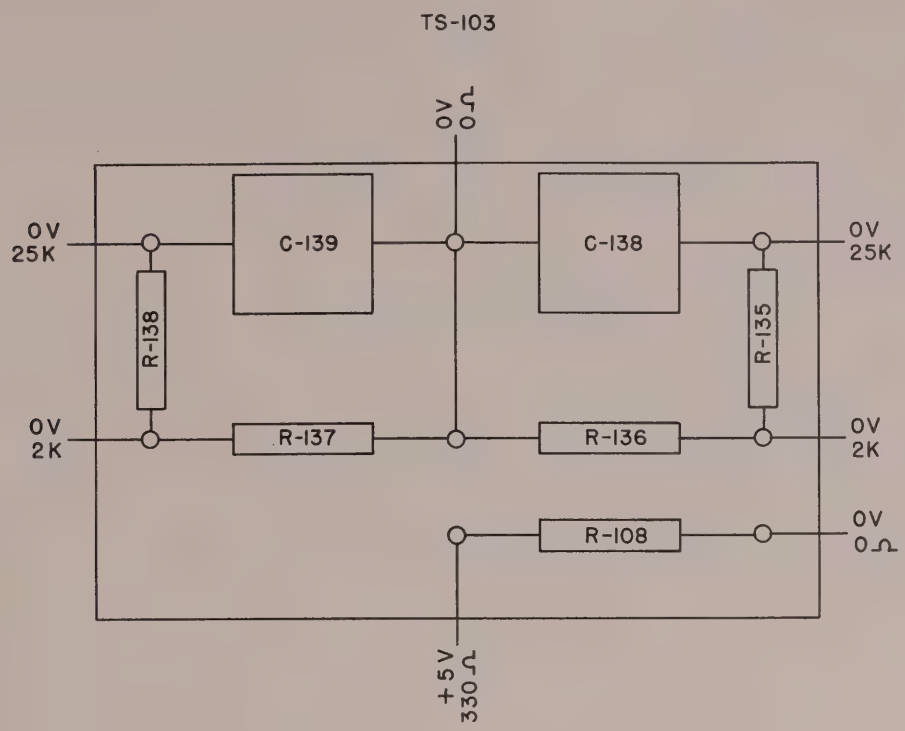
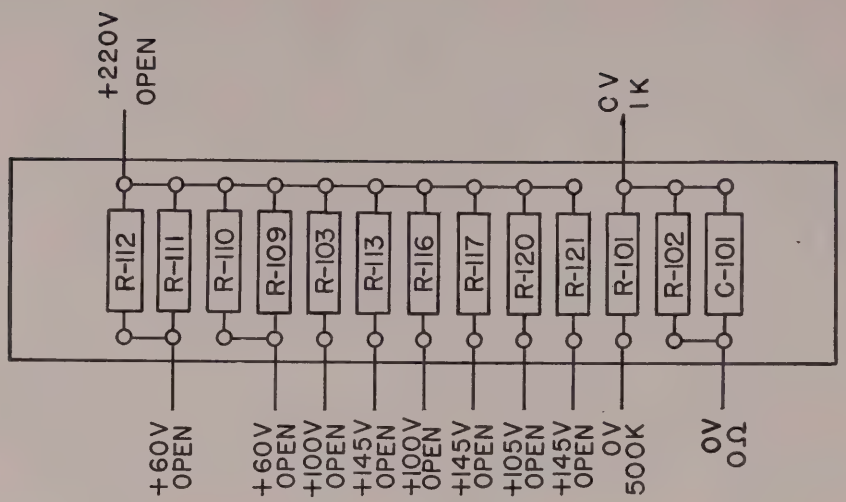


Figure 52.1 (Added.) *Radio Transmitter T–264/FRC–6A, TS–103, resistor-capacitor board diagram.*

TS-104



REMOVE METER PLUG FROM J-103. SET LINE VOLTAGE AT 110V AC AS INDICATED BY METER M-2. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHMS-PER-VOLT METER. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED.

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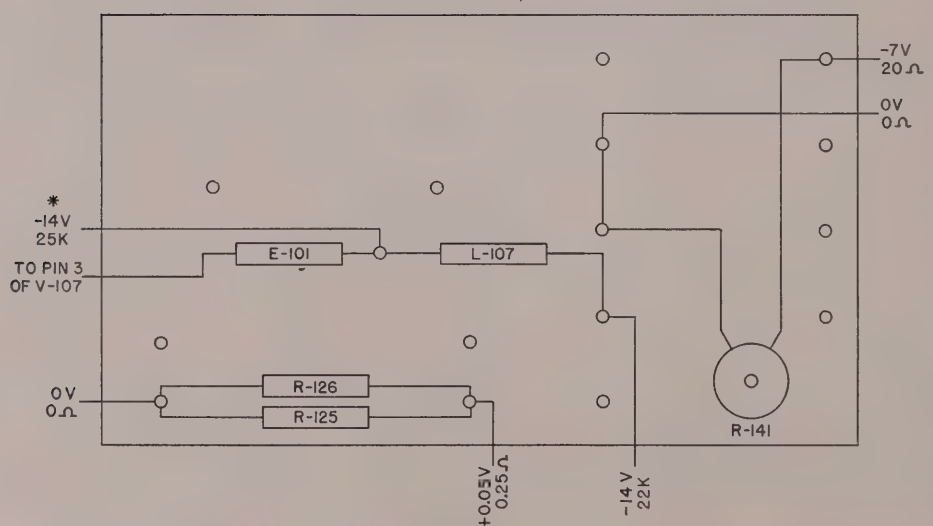
Figure 52.2 (Added) *Radio Transmitter T–264/FRC–6A, TS–104, resistor-capacitor board diagram.*

TS-105 (FRONT)



REMOVE METER PLUG FROM J-103. SET LINE VOLTAGE AT 110V AC AS INDICATED BY METER M-2. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHMS-PER-VOLT METER. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED.

* READINGS TAKEN WITH A 2.5MH CHOKE IN SERIES WITH DC PROBE.

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Figure 52.3 (Added) *Radio Transmitter T–264/FRC–6A, TS–105 (front), resistor board diagram.*

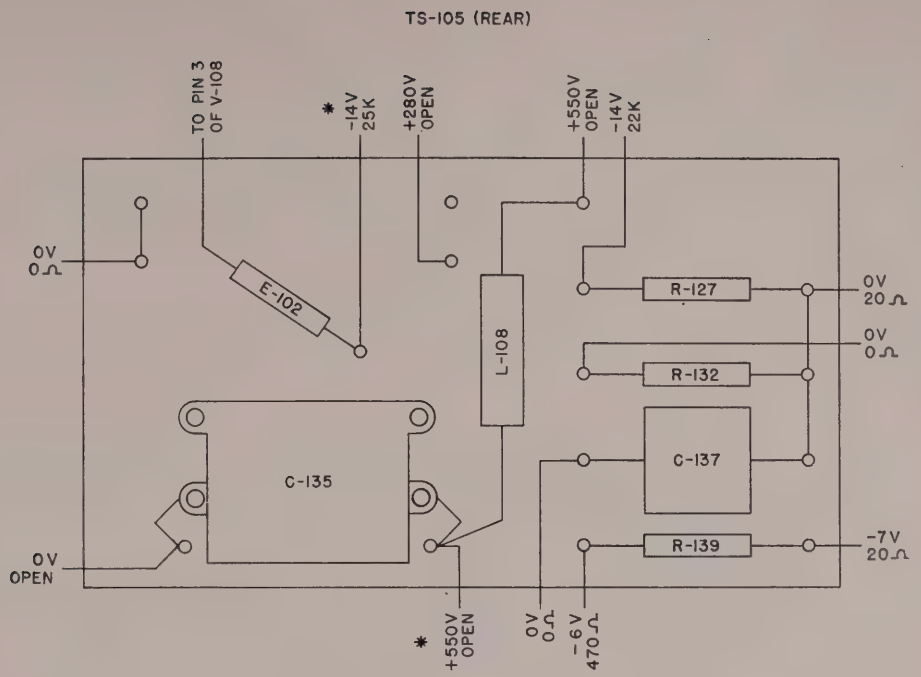


Figure 52.4 (Added) *Radio Transmitter T–264/FRC–6A, TS–105 (rear), resistor-capacitor board diagram.*

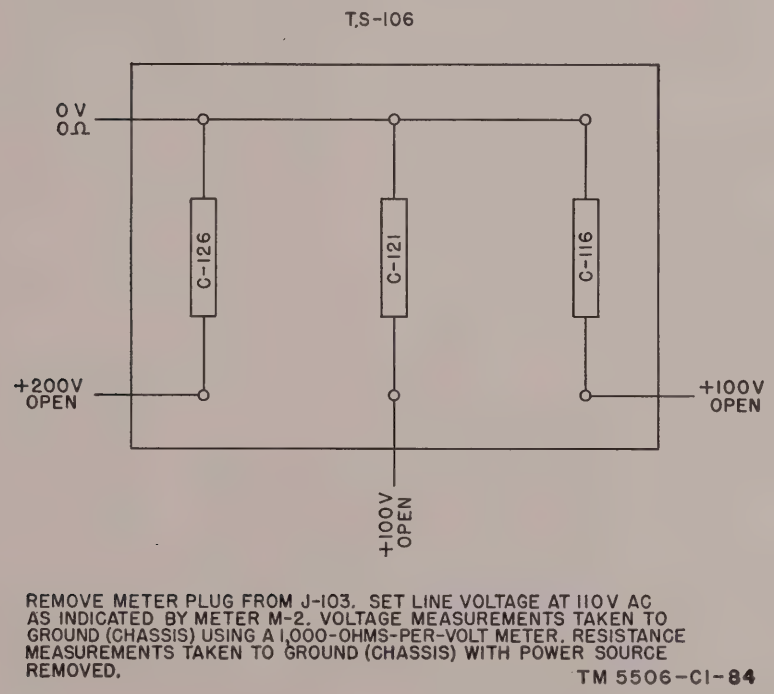

TS-106
0V 0Ω
C-126
C-121
C-116
+200V OPEN
+100V OPEN
+100V OPEN
REMOVE METER PLUG FROM J-103. SET LINE VOLTAGE AT 110V AC AS INDICATED BY METER M-2. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHMS-PER-VOLT METER. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED.
TM 5506-C1-84

Figure 52.5 (Added) *Radio Transmitter T–264/FRC–6A, TS–106, capacitor board diagram.*

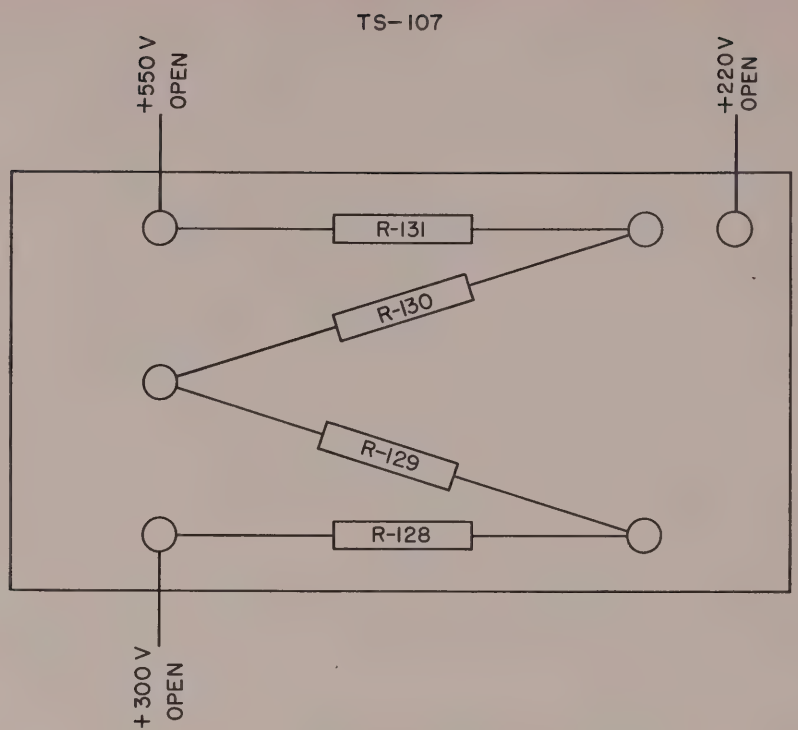

TS-107
+550 V
OPEN
+220 V
OPEN
R-131
R-130
R-129
R-128
+300 V
OPEN
(A) RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110 V AC AS INDICATED BY METER M-2.
(B) 6 VOLTS INPUT TO 18 FOOT POWER CABLE.
(C) OUTPUT LOAD AT TRANSMITTER 34 Ω.
TM 5506-C1-85

Figure 52.6 (Added) *Radio Transmitter T–264/FRC–6A, TS–107, resistor board diagram.*

78. Localizing Trouble in Receiver

Before attempting to * * * and r-f amplifier. The power to **Radio Receiver R–276A/FRC–6** is furnished through relay 0–101 in the transmitter and is supplied by the interconnect cables between the transmitter and receiver. **The primary power to Radio Receiver R–368/FRC–6A is supplied through pins 1 and 6 of the RECEIVER connector which is located in the transmitter.** A quick observation * * * to be good. If after replacing tubes the receiver fails to operate, make resistance and voltage checks against the values given in figure 58 **or 58.1.**

a. Power Supply. The receiver power * * * (P–203 and P–204). The 258 volts from the power supply **are** fed to pin 4 of the power receptacle, through a pair of normally closed contacts of relay **0–102** in the transmitter unit, back to pin 3 of the power receptacle, and thence to the red-bodied pin type plug, P–203. The 6.3 volts * * * accomplished as follows:

* * * * *

(2) **For Radio Receiver R–267A/FRC–6 only, if the** fuse is good but there is still no filament voltage, check relay 0–101 in the transmitter and interconnect cable.

(3) If the above methods fail to put the power supply in operation, it will be necessary to remove the power supply from the receiver chassis and check resistances and voltages against those given in figure 58 **or 58.1.**

b. Second A-F Amplifier. The second a-f amplifier, or power amplifier, consists of Tube JAN–6K6GT (V–213), output transformer T–209, and L–204 (**in Radio Receiver R–276A/FRC–6 only**). Perform trouble shooting * * * amplifier as follows:

* * * * *

(2) Make resistance and voltage checks, referring to V–213 on figure 58 **or 58.1.**

* * * * *

c. Squelch and First A-F Amplifier. Dual-triode Tube * * * the squelch circuit. If difficulty is encountered in the squelch circuit after all resistance and voltage measurements of V–212 have been checked against figure 58 **or 58.1,** then a careful resistance check should be made on all resistors (refer to the partial schematic diagram, fig. 36).

* * * * *

e. Second Limiter and Discriminator. The second limiter * * * proceed as follows:

* * * * *

(2) Make resistance and voltage checks as given in figure 58 **or 58.1.**

* * * * *

f. First Limiter. A low or * * * the preceding stage. Trouble shooting these two circuits can best be made by checking tubes and making resistance and voltage checks against V–207 and V–208 as given in figure 58 **or 58.1.** Open windings in * * * second limiters inoperative.

* * * * *

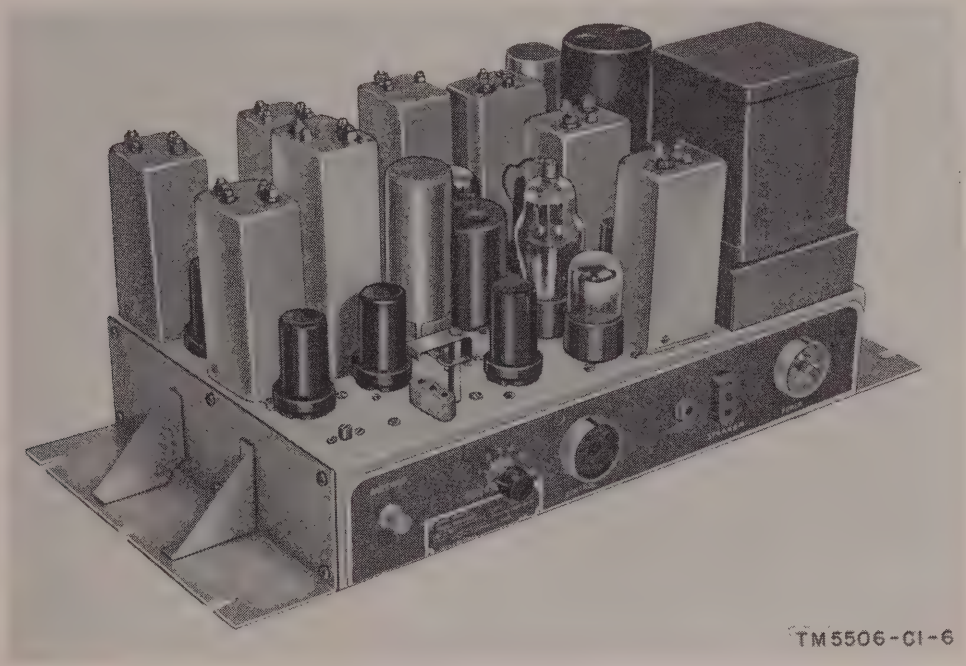


Figure 55.1 (Added.) *Radio Receiver R–368/FRC–6A, top view.*

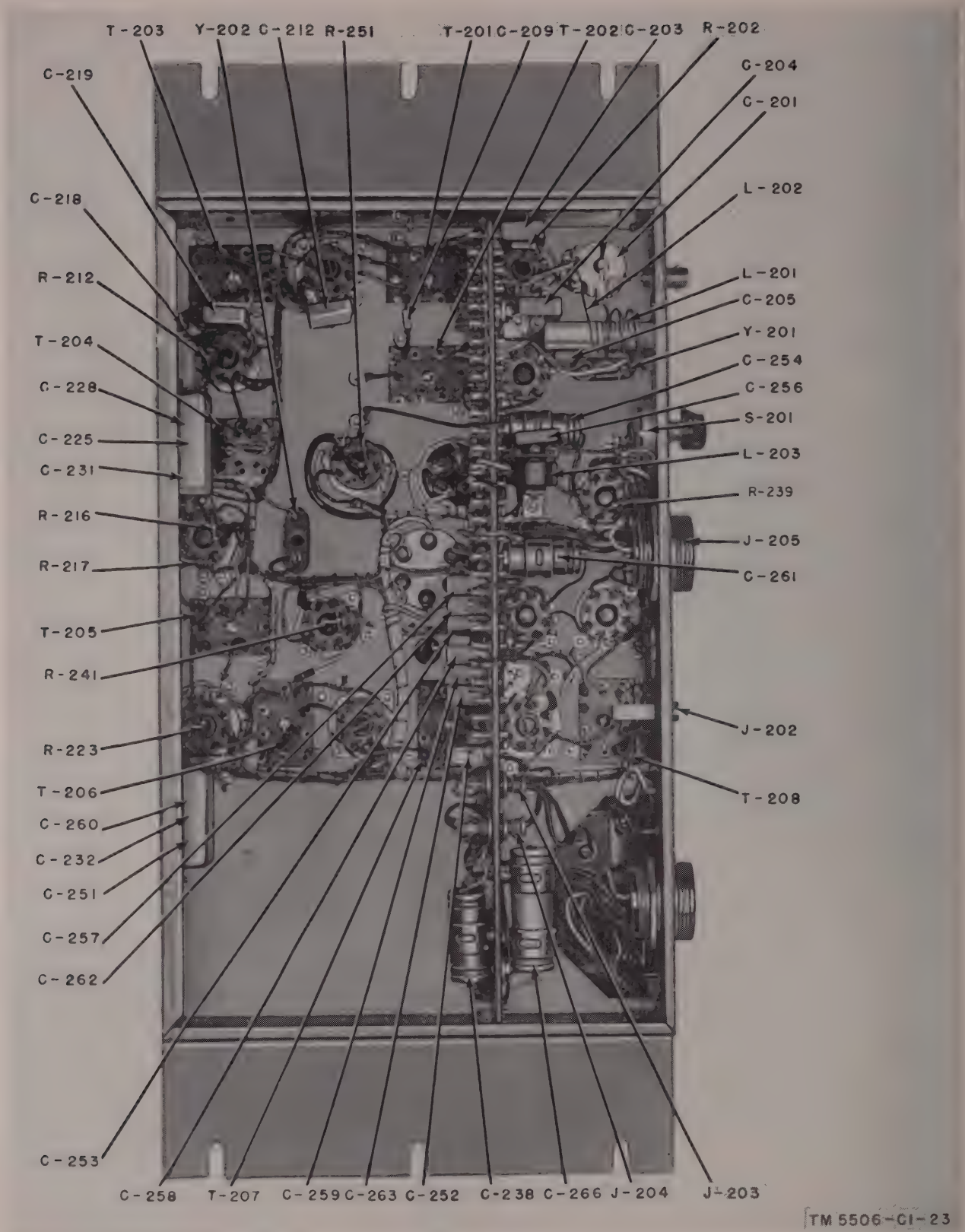


Figure 56.1 (Added.) *Radio Receiver R–368/FRC–6A, bottom view.*

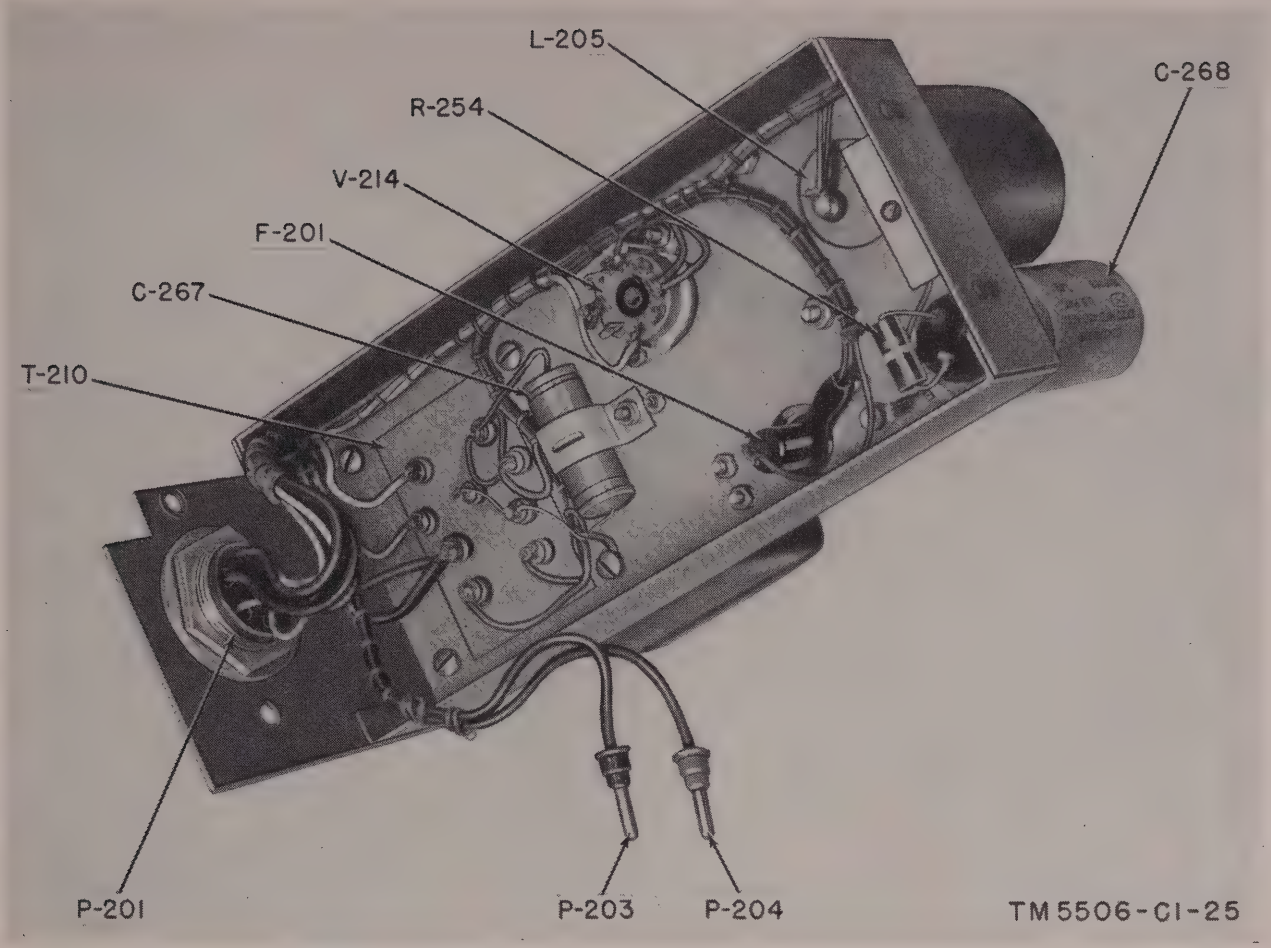


Figure 57.1 (Added.) *Power Supply PP–421B/FRC–6, bottom view.*

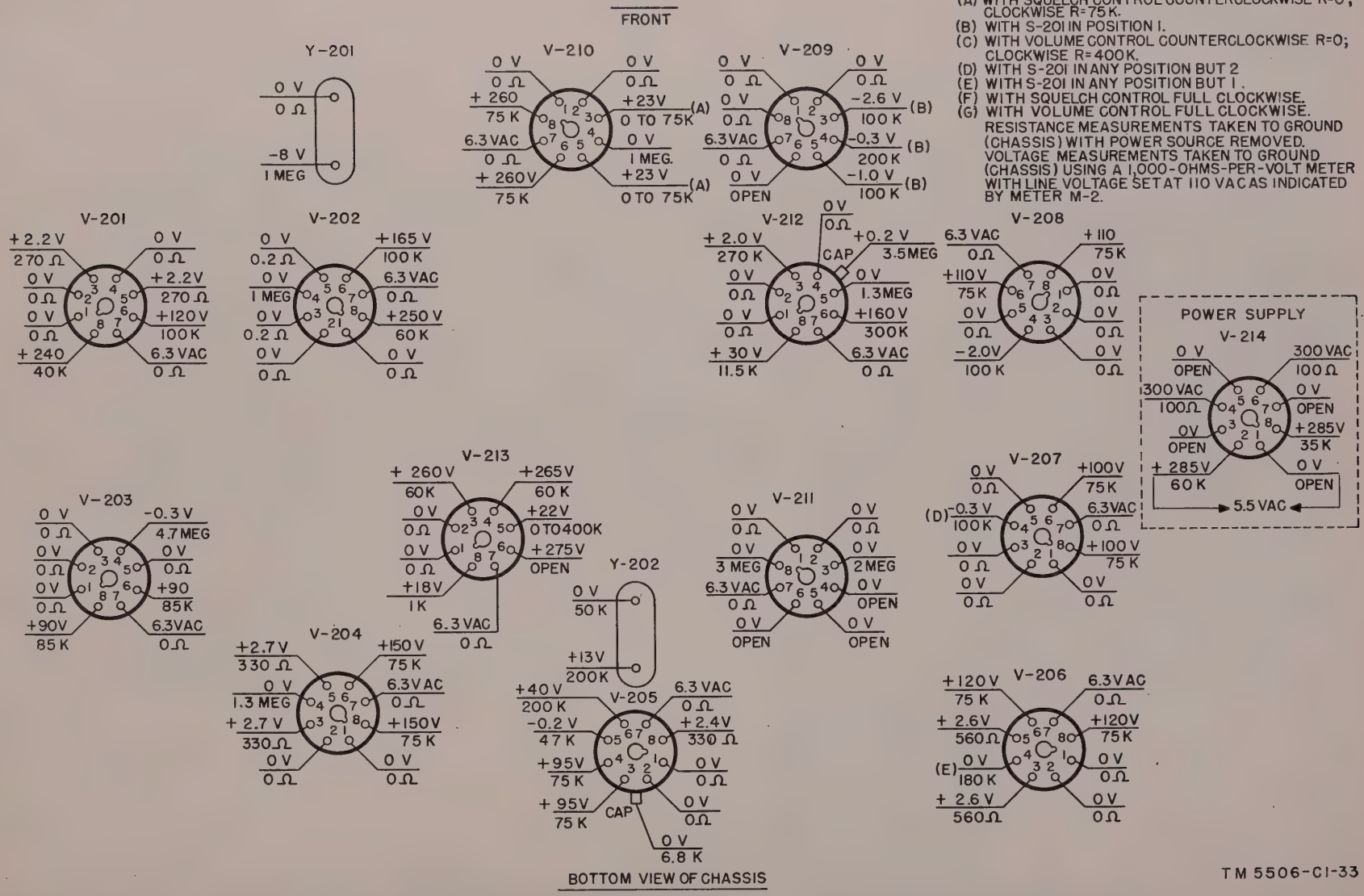
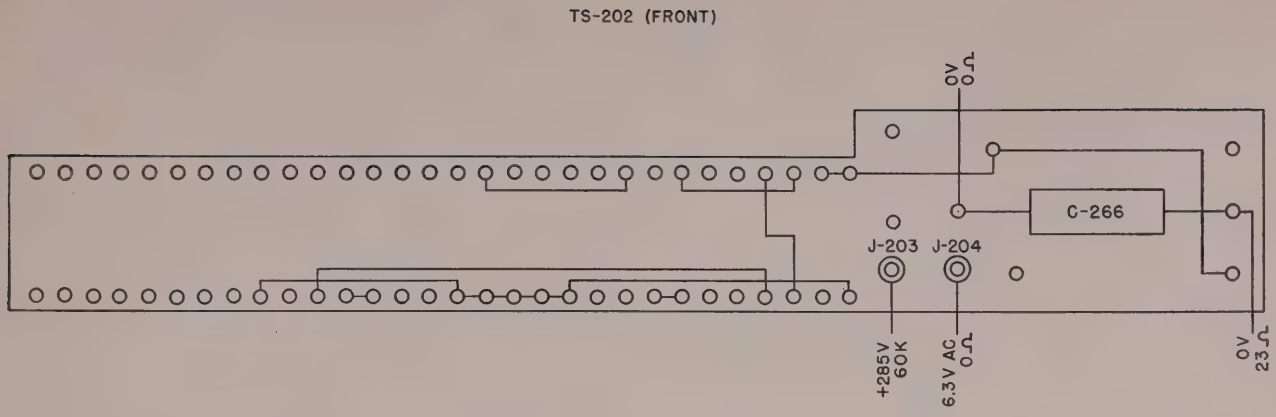


Figure 58.1 (Added.) *Radio Receiver R–368/FRC–6A, tube socket voltage and resistance diagram.*



NOTES:

(A) RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110V AC AS INDICATED BY METER M-2.
(B) SQUELCH CONTROL FULL CLOCKWISE.
(C) VOLUME CONTROL FULL CLOCKWISE.

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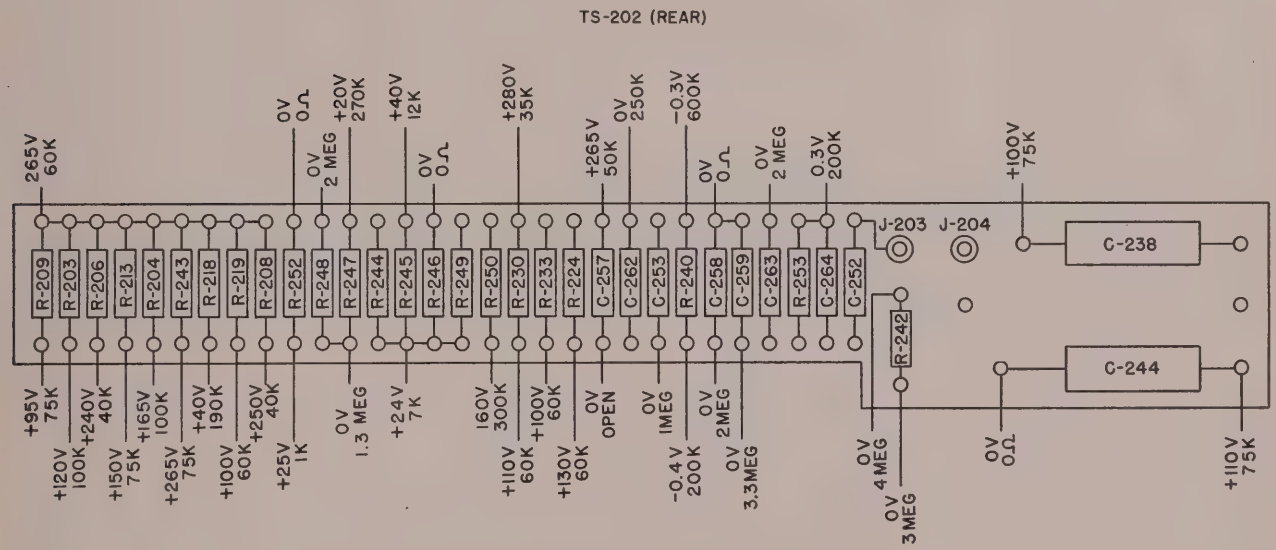
Figure 59.1 (Added.) *Radio Receiver R–368/FRC–6A, TS–202 (front), resistor-capacitor board diagram.*



NOTES:

(A) RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110V AC AS INDICATED BY METER M-2.
(B) SQUELCH CONTROL FULL CLOCKWISE.
(C) VOLUME CONTROL FULL CLOCKWISE.

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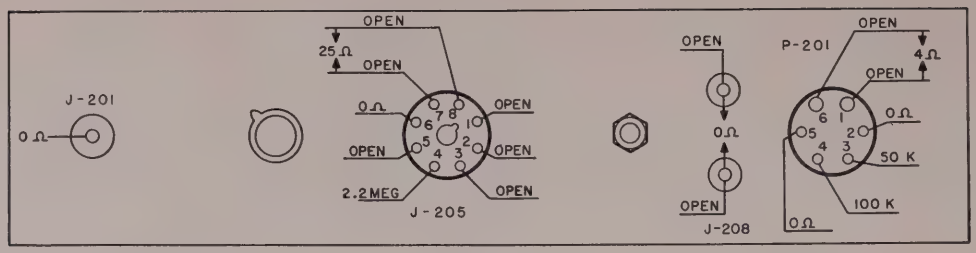
Figure 59.2 (Added.) *Radio Receiver R–368/FRC–6A, TS–202 (rear), resistor-capacitor board diagram.*



NOTES:
ALL PLUGS AND CABLES REMOVED AND RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) EXCEPT WHERE OTHERWISE INDICATED. K=1,000 OHMS MEG = 1,000,000 OHMS.

FRONT

TM 5506-C1-73

Figure 60.1 (Added.) *Radio Receiver R–368/FRC–6A, connector resistance diagram.*

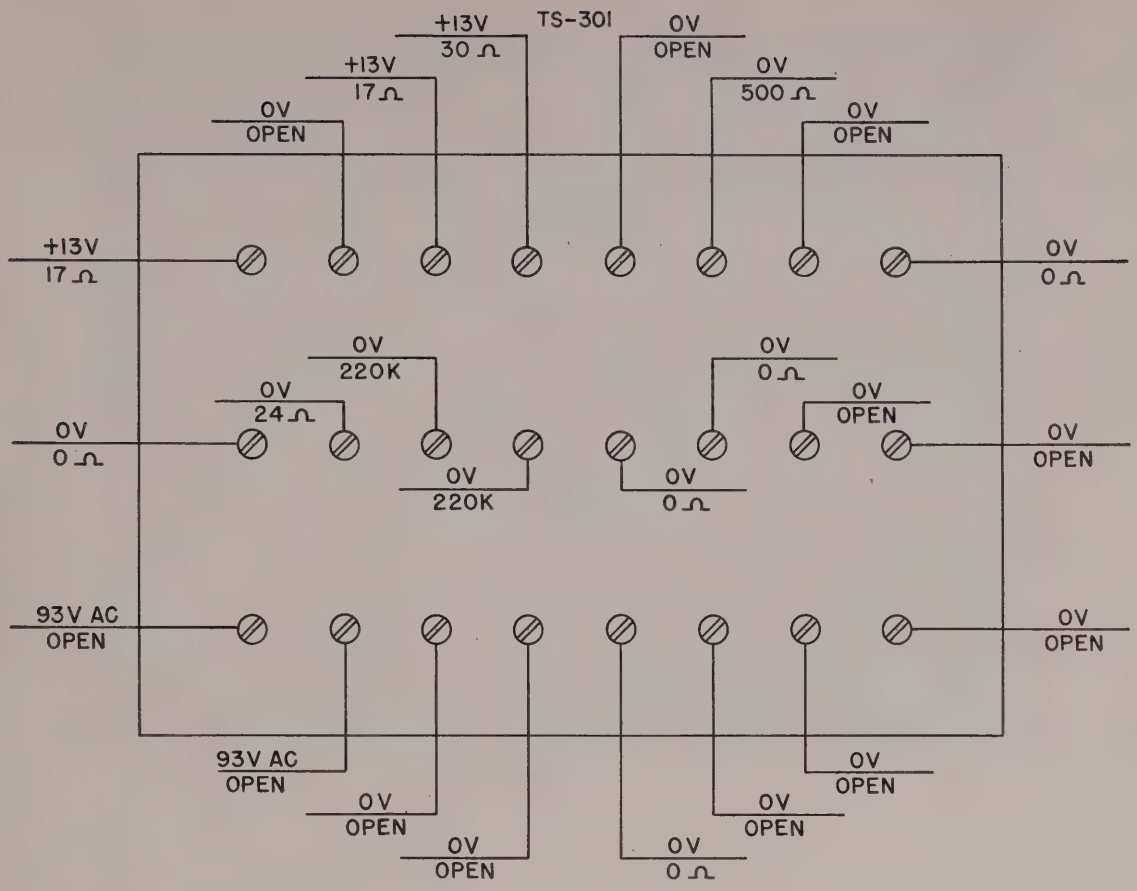
Figure 61. Radio Set Control ***C–560(*)/FRC–6.***

79. Receiver Trouble Location Chart

Symptom	Probable trouble	Correction
*	*	*
2. Power on receiver but no sound from speaker.	2. Tube V–213 defective.	2. Replace tube V–213.
	Capacitor C–265 shorted (**in Radio Receiver R–276A/FRC–6 only**).	Replace * * * C–265.
	Inductor L–204 open (**in Radio Receiver R–276A/FRC–6 only**).	Replace * * * L–204.
	Output * * * defective.	Replace * * * T–209.
*	*	*

80. Localizing Trouble in Radio Set Control

The radio set * * * and SQUELCH control. Localizing trouble in the radio set control can best be accomplished by checking resistance and voltage readings against the values given in figure 63 **or 63.1.** The cover can * * * and manual operation.



ALL MEASUREMENTS TAKEN WITH VOLUME CONTROL AT "HI", SQUELCH CONTROL AT "OFF", AND LINE INPUT CONTROL AT "HI"; ALL PLUGS, SOCKETS, TUBES AND CABLES IN PLACE WITH RECEIVER OPERATING AND TRANSMITTER INOPERATIVE. VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE OF 110V AS INDICATED ON METER M-2. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED.

TM 5506-CI-38

Figure 63.1 (Added.) *Radio Set Control C-560B/FRC-6, terminal board resistance and voltage diagram.*

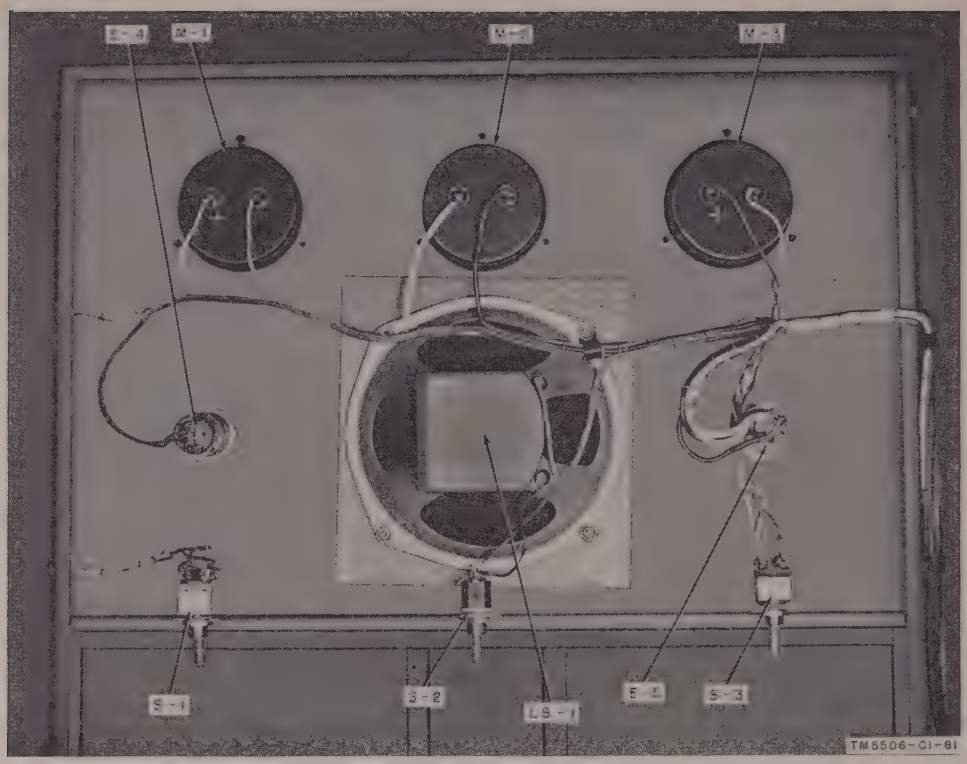


Figure 64.1 (Added.) *Radio Set AN/FRC–6A, meter-speaker panel, rear view.*

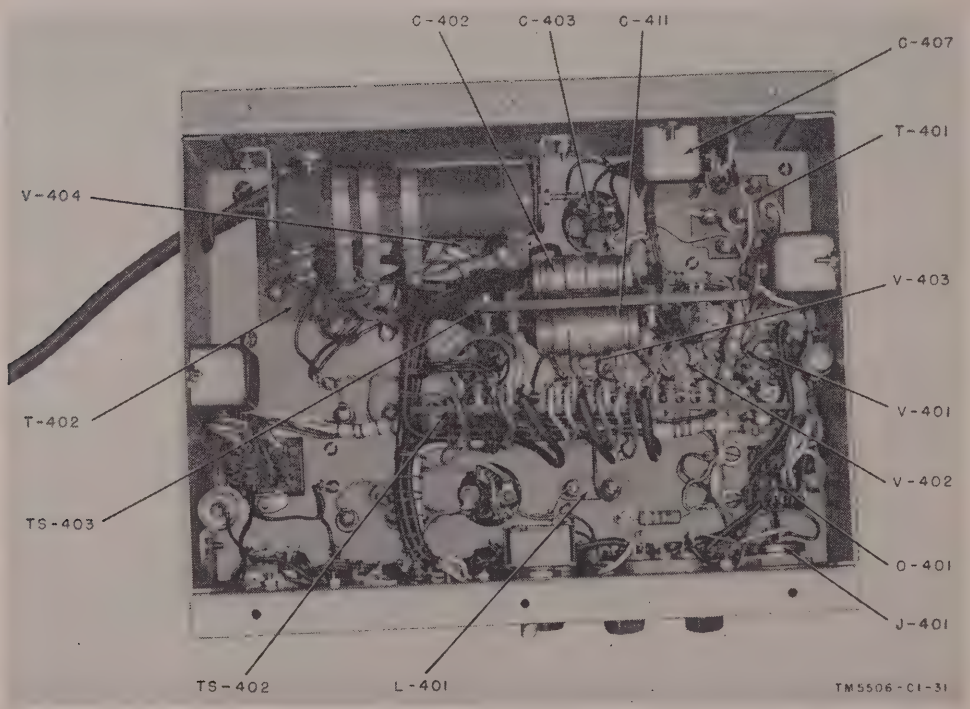


Figure 67.1 (Added.) *Console C–559B/FRC–6, bottom right view.*

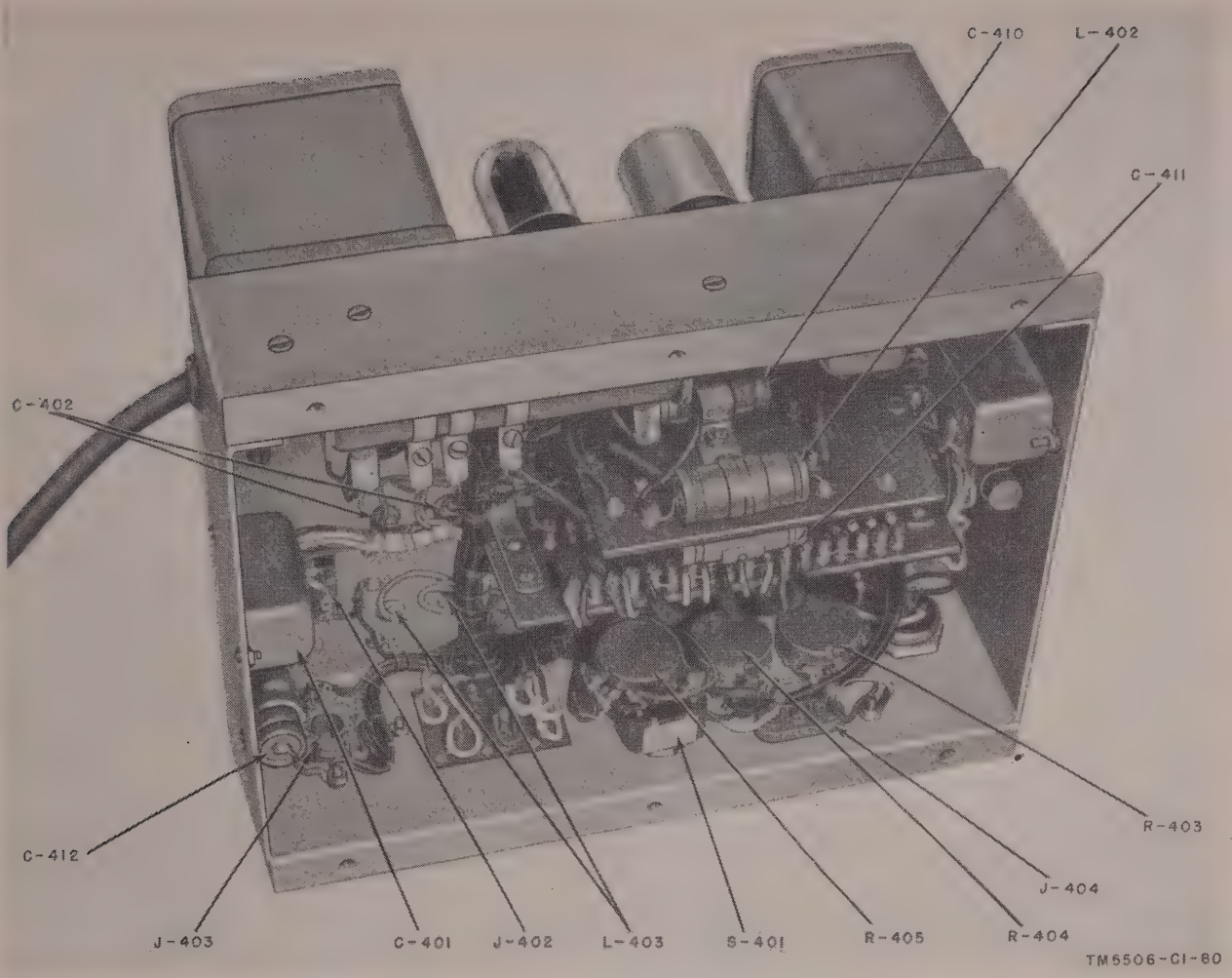
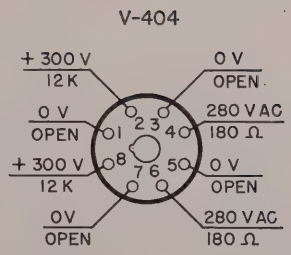
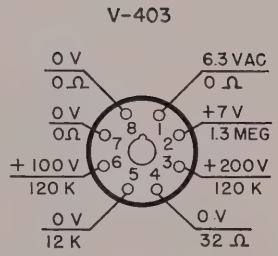


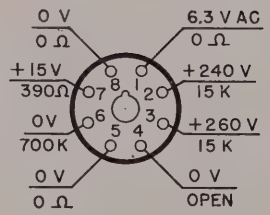
Figure 68:1 (Added.) *Console C–559B/FRC–6, bottom left view.*

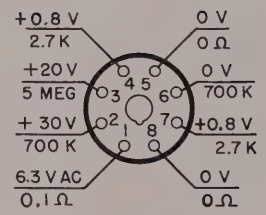
FRONT

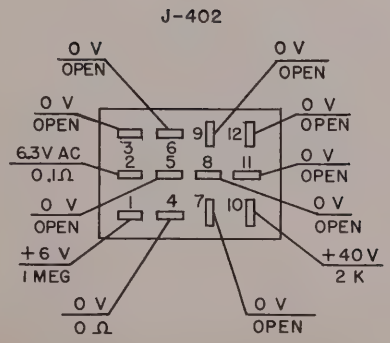
VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHMS-PER-VOLT METER WITH LINE VOLTAGE SET AT 110 V AC. RESISTANCE MEASUREMENTS MADE TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. P-402 REMOVED FROM SOCKET FOR ALL MEASUREMENTS WITH XMTR, RCVR, AND TONE CONTROLS SET AT EXTREME CLOCKWISE POSITION. K=1,000 OHMS.

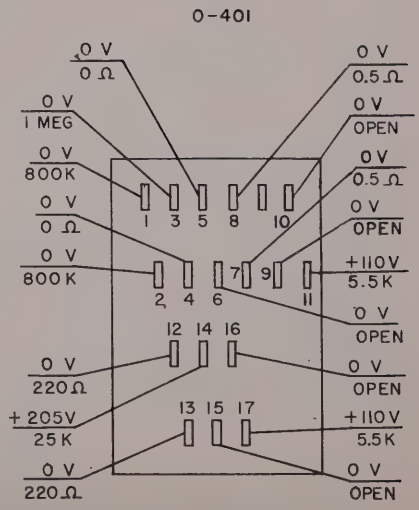










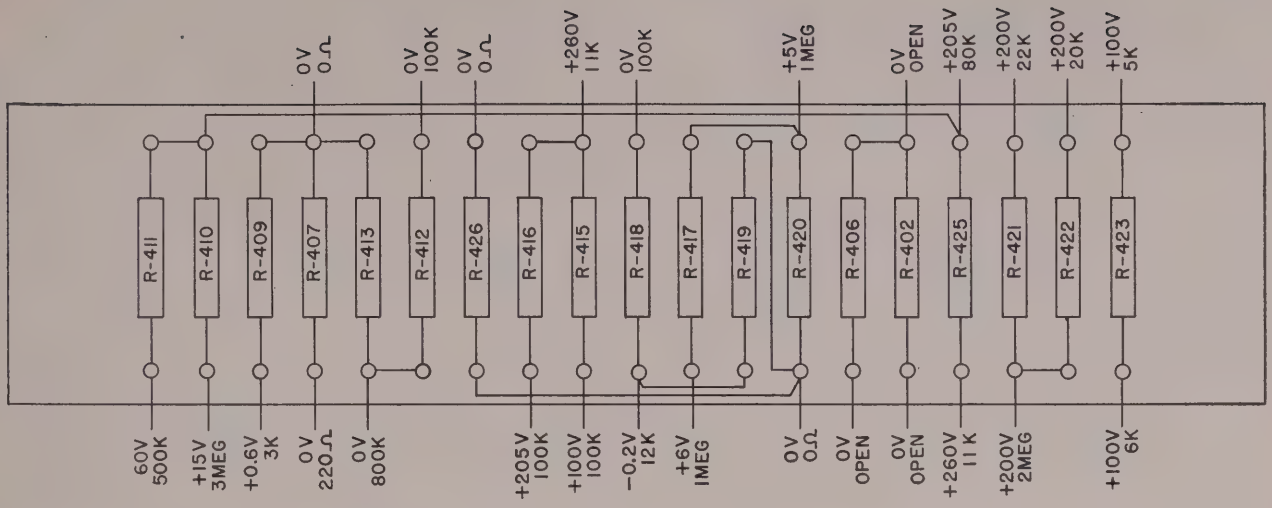


BACK

BOTTOM VIEW OF CHASSIS

TM 5506-C1-37

Figure 69.1 (Added.) *Console C-559B/FRC-6, tube socket voltage and resistance diagram.*



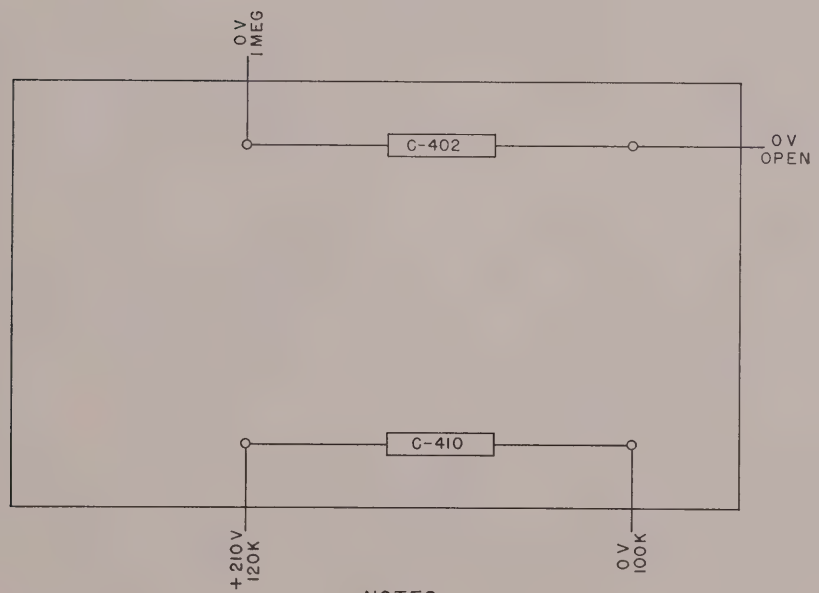
NOTE:

VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110 V AC. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. P-402 REMOVED FROM SOCKET FOR ALL MEASUREMENTS WITH XMTR, RCVR AND TONE CONTROLS SET AT EXTREME CLOCKWISE POSITION.

TM 5506-C1-90

Figure 70.1 (Added.) *Console C–559B/FRC–6, TS–402, resistor board diagram.*

TS-403(FRONT)



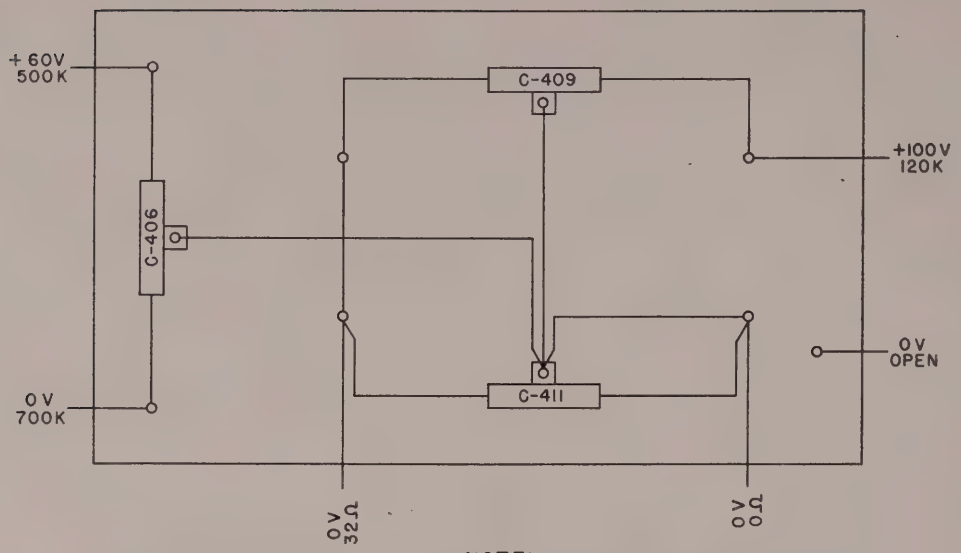
NOTES:

VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110 V AC. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. P-402 REMOVED FROM SOCKET FOR ALL MEASUREMENTS WITH XMTR, RCVR, AND TONE CONTROLS SET AT EXTREME CLOCK-WISE POSITION.
K= 1,000 OHMS. MEG=1,000,000 OHMS.

TM 5506-C1-91

Figure 70.2 (Added.) *Console C–559B/FRC–6, TS–403 (front), capacitor board diagram.*

928997°—51——5



NOTE:

VOLTAGE MEASUREMENTS TAKEN TO GROUND (CHASSIS) USING A 1,000-OHM-PER-VOLT METER WITH LINE VOLTAGE SET AT 110 V AC. RESISTANCE MEASUREMENTS TAKEN TO GROUND (CHASSIS) WITH POWER SOURCE REMOVED. P-402 REMOVED FROM SOCKET FOR ALL MEASUREMENTS WITH XMTR, RCVR, AND TONE CONTROLS SET AT EXTREME CLOCK-WISE POSITION.

TM 5506-C1-92

Figure 70.3 (Added.) *Console C–559B/FRC–6, TS–403 (rear), capacitor board diagram.*

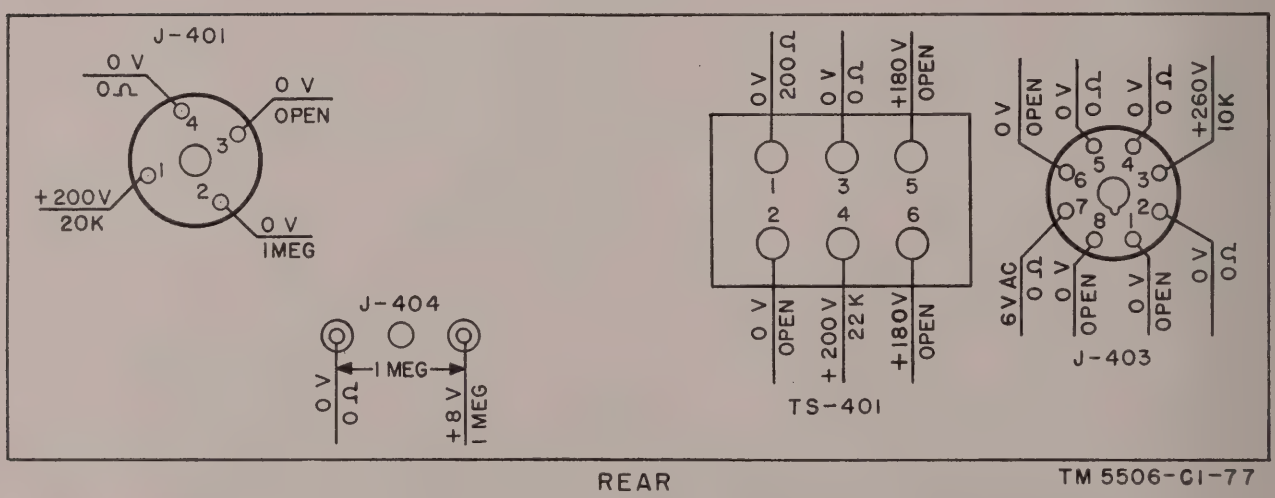


Figure 71.1 (Added.) *Console C–559B/FRC–6, connector voltage and resistance diagram.*

83. Localizing Trouble in Console Unit

* * * * *

b. Audio Amplifier. Tubes JAN–7C7 (V–401) * * * should be followed:

* * * * *

(2) With power off, make resistance measurements against data given in figure 69 **or 69.1.**

(3) With power on, make voltage measurements against data given in figure 69 **or 69.1.**

* * * * *

c. Tone Oscillator. Trouble shooting the * * * accomplished as follows:

* * * * *

(2) Make resistance measurements against data given in figure 69 **or 69.1.**

(3) With power turned on, make voltage measurements of V–403 against data given in figure 69 **or 69.1.**

* * * * *

88. Meters

Because meters are * * * a new one. However, **for Radio Set AN/FRC–6,** all meters should be checked to see that they zero-set properly. This is best * * * proper physical size.

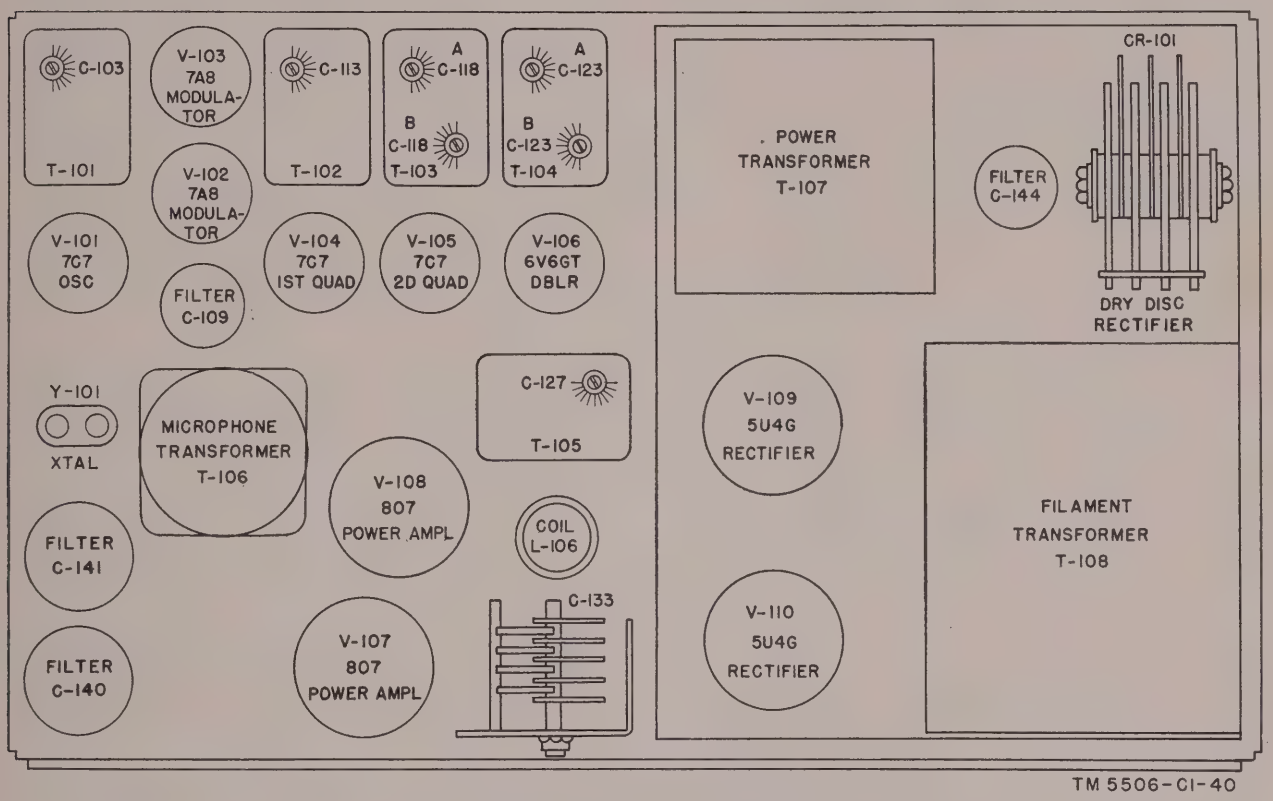


Figure 73.1 (Added.) *Radio Transmitter T–264/FRC–6A, component layout.*

89. Transmitter

(fig. 73 **or 73.1**)

a. Preliminary Procedure.

* * * * *

(2) Connect the proper * * * as outlined below:

Radio Transmitter T–215A/FRC–6

Frequency range (mc)	*No. of turns*
*	*

Radio Transmitter T–264/FRC–6A
(Added)

Frequency range (mc)	*No. of turns*
30–33	8
33–37	7
37–40	6

* * * * *

(4) Rough setting of * * * to the transmitter. Rotate capacitors C–103, C–113, C–118, C–123, and C–127 (**for Radio Transmitter T–215A/FRC–6**) **or capacitors C–103, C–113, C–118A, C–118B, C–123A, C–123B, and C–127 (for Radio Transmitter T–264/FRC–6A),** so that the slot in the tuning shaft points to the carrier frequency. For example: The * * * nonmetallic tuning tool.

b. Oscillator Alinement. Set the METER * * * approximately 2 microamperes. Normal meter reading for position 1 of the METER SWITCH is 28 microamperes **for Radio Transmitter T–215A/FRC–6 and 18 microamperes for Radio Transmitter T–264/FRC–6A.**

c. Modulator Alinement. Set the METER * * * of meter M–1. The meter should read approximately 29 microamperes **for Radio Transmitter T–215A/FRC–6 and approximately 25 microamperes for Radio Transmitter T–264/FRC–6A.**

d. First Quadrupler. Set the METER SWITCH to position 3. Tune the plate circuit to four times the frequency of the modulator stage by tuning C–118 **for Radio Transmitter T–215A/FRC–6 or C–118A and C–118B for Radio Transmitter T–264/FRC–6A** on top of T–103. Tune for maximum * * * in figure 74. Normal meter reading is 43 microamperes **for Radio Transmitter T–215A/FRC–6 and 14 microamperes for Radio Transmitter T–264/FRC–6A.**

e. Second Quadrupler. Set the METER * * * the crystal frequency. Turn slightly C–123 **for Radio Transmitter T–215A/FRC–6 or C–123A and C–123B for Radio Transmitter T–264/FRC–6A** on the top of T–104 for maximum reading on meter M–1. By rotating C–123, **or C–123A or C–123B,** a full 180°, several peaks will be observed. The correct peak * * * the carrier frequency. Normal meter reading is 15 microamperes **for Radio Transmitter T–215A/FRC–6 and 7 microamperes for Radio Transmitter T–264/FRC–6A.**

f. Doubler. Set the METER * * * or 3 seconds. The normal meter reading is 32 microamperes **for Radio Transmitter T–215A/FRC–6 and 21 microamperes for Radio Transmitter T–264/FRC–6A.**

g. Power Amplifier. Set the METER * * * for minimum reading. Continue reducing the capacity of C–134 in small steps, each time readjusting C–133 for minimum reading until meter M–1 reads about 30 microamperes **for Radio Transmitter T–215A/FRC–6 and about 37 microamperes for Radio Transmitter T–264/FRC–6A.** The meter in * * * the antenna system. Retune the ANT. and PLATE capacitors, if necessary, to obtain **the proper reading** on meter M–1. Be sure that * * * on meter M–1.

h. Typical Transmitter Meter Readings. (Superseded.)

METER SWITCH position	Circuit	Alinement control	Meter readings for Radio Transmitters	
			T–215A/FRC–6	T–264/FRC–6A
1	Oscillator grid current	T–101	28	18
2	First quadrupler grid current	T–102	29	25
3	Second quadrupler grid current	T–103	43	14
4	Doubler grid current	T–104	15	7
5	Power amplifier grid current	T–105	32	21
P. A	Power amplifier cathode current	Plate	30	37
MOD	Modulator grid current		35	17

Note. Slight deviations from these figures are permissible; however, any deviation of more than 10 percent should be considered as sufficient cause for realinement or possible tube replacement.

In figure 75, change the designation of JAN–6H6GT SQUELCH V–211 to read: JAN–6H6GT NOISE RECT V–211.

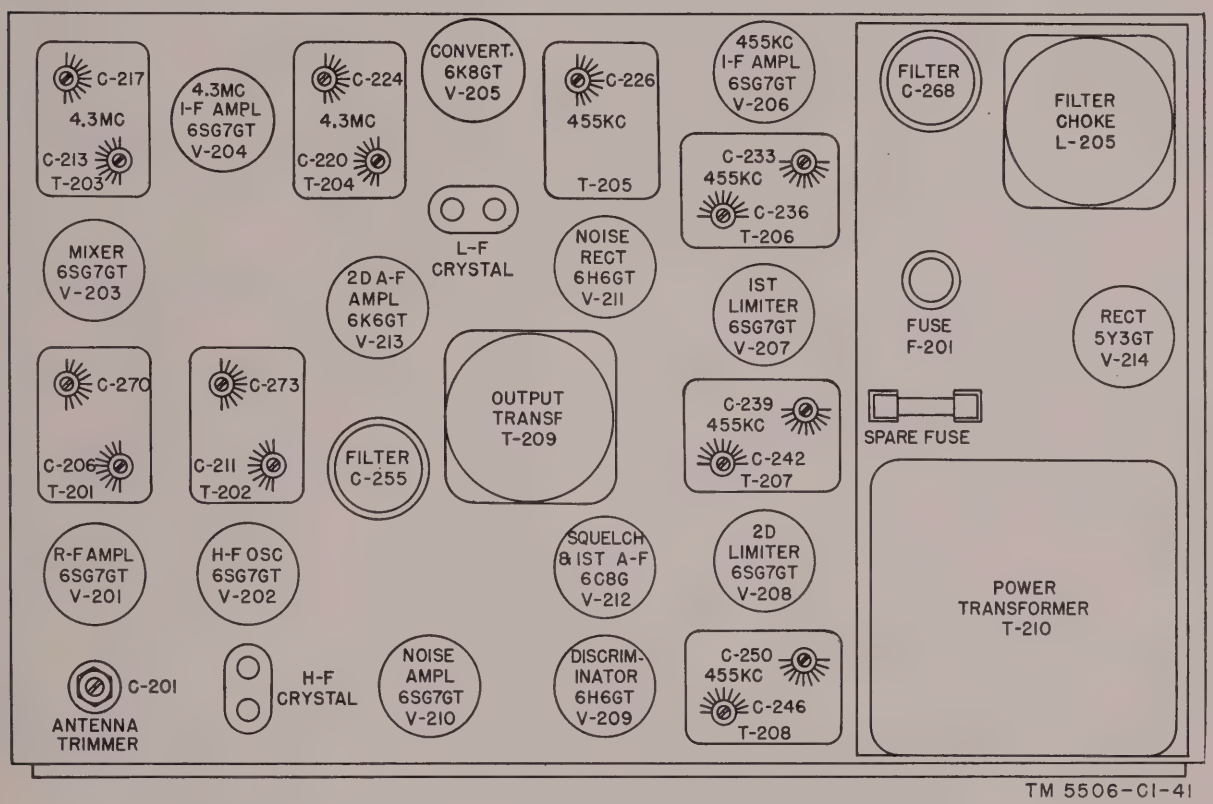


Figure 75.1 (Added.) *Radio Receiver R–264/FRC–6A, component layout.*

90. Receiver

(fig. 75 **or 75.1**)

* * * * *

c. 455–KC Amplifier and Limiters. Using a 0.05-mf * * * at the peaks. An input signal of approximately 350 microvolts **for Radio Receiver R–276A/FRC–6 and approximately 220 microvolts for Radio Receiver R–368/FRC–6A** should provide a meter indication of 15 microamperes on meter M–3.

d. Discriminator. With the 455-kc * * * of opposite polarity. **For Radio Receiver R–276A/FRC–6, to acquire one of the above readings,**

the leads to M–3 must be reversed to obtain an up-scale indication. For Radio Receiver R–368/FRC–6A, meter reversal switch S–3 must be used to obtain an up-scale indication. Normal current for these two readings is 28 microamperes for Radio Receiver R–276A/FRC–6 and 32 microamperes for Radio Receiver R–368/FRC–6A.

e. 4.3–MC I-F Amplifier. Set the METER * * * deflection of M–3. An input signal of approximately 8 microvolts **for Radio Receiver R–276A/FRC–6 and 6 microvolts for Radio Receiver R–368/FRC–6A** should indicate 15 microamperes on M–3.

f. R-F Circuits. **For Radio Receiver R–276A/FRC–6, set** the METER SWITCH to position 2. Connect the h-f * * * deflection of M–3. Tune **C–206,** C–211, and antenna trimmer capacitor C–201 for maximum deflection of M–3. As tuning progresses * * * Realinement is necessary. **For Radio Receiver R–368/FRC–6A, follow the procedure outlined above, substituting C–206 and C–270 for C–206, and substituting C–211 and C–273 for C–211.**

g. Typical Receiver Meter Readings. The chart and note from the top of page 88 of TM 11–5506 should be utilized here, before the beginning of paragraph 91.

APPENDIX III

(Superseded)

IDENTIFICATION TABLE OF PARTS

1. General

The fact that a part is listed in this table is not sufficient basis for requisitioning the item. Requisitions must cite an authorized basis, such as a specific pamphlet in each series of T/O & E, T/A, T/BA, SIG 7 & 8, SIG 7–8–10, SIG 10, list of allowances of expendable material, or another authorized supply basis. The Department of the Army Supply Catalog applicable to the equipment covered in this manual is SIG 7 & 8–AN/FRC–6. For an index of available supply catalogs in the Signal portion of the Department of the Army Supply Catalog, see the latest issue of SIG 1, Introduction and Index.

2. Identification Table of Parts

a. Radio Set AN/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO SET AN/FRC–6: fixed station; FM; xmtr output 50 w; freq range of xmtr and rec 30–40 mc, permitting operation at any 1 preset freq within range; operates on 110 v AC, 60 cyc, single ph, 350 w; c/o Radio Transmitter T–215A/FRC–6, Radio Receiver R–276A/FRC–6, Radio Set Control C–560A/FRC–6, Rack MT–658A/FRC–6, Console C–559A/FRC–6, and Power Supplies PP–420/FRC–6 and PP–421/FRC–6.	For communication	2S2002–6
	TECHNICAL MANUAL (TM 11–5023).		
	TECHNICAL MANUAL (TM 11–5506).		
	ANTENNA AS–412/FRC–6: gnd plane; brass, olive drab; sectionalized; 16 ft h extended; 3 sec 3 ft lg; 4 sec 20″ lg; L-shaped bkt for mtg; fixed; freq range 30–40 mc; 50 ohms coaxial transmission line.	Transmitting and receiving.	2A264–412
	CONSOLE C–559A/FRC–6: p/o Army-Navy Radio Set AN/FRC–6; steel, olive drab finish; operates on 110 v AC, 60 cyc; 18″ wd x 12″ d x 10″ h o/a; mtd on 4 rubber ft.	Controls radio set	2C684–559A
	RADIO SET CONTROL C–560A/FRC–6: steel chassis; operates on 110 v AC, 60 cyc; 19″ lg x 5⅜″ wd x 7 11/16″ h o/a; two ¼″ slots on ea end fl for mtg on 18⅜″ x 3½″ mtg/c in cabinet; controls marked "line input control," "squelch," "volume," and "equalizer."	Controls radio set	2C684–560A
	RACK MT–658A/FRC–6: steel, olive drab crackle finish; 22½″ wd x 15″ d x 68″ h; 1 angle inside on ea side for mtg equip; 2 hinged doors w/locks, 1 front, 1 back.	Holds components of Radio Set AN/FRC–6.	2Z7383–658A
	RADIO RECEIVER R–276A/FRC–6: FM; 30–40 mc; 1 band; input 110 v, 60 cyc, 150 w; chassis only for mtg in metal cabinet; 14½″ lg x 12½″ wd x 8½″ h; incl Army-Navy Power Supply PP–421A/FRC–6; 14 tube, double conversion superheterodyne; xtal controlled.	For communication	2C4180–276A
	RADIO TRANSMITTER T–215A/FRC–6: FM; 30–40 mc; output 50 w; input 110 v AC, 60 cyc, 1 ph, 325 w; chassis only for mtg in metal cabinet; 14½″ lg x 12½″ wd x 9½″ h; xtal controlled; incl Army-Navy Power Supply PP–420A/FRC–6; supplied w/output coil covering 32.8–35.5 mc; charge coil for other freq.	For communication	2C6900–215A

b. Radio Set AN/FRC–6A.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO SET AN/FRC–6A: FM; xmtr output 50 w; 30–40 mc; var oper freq.	For communication	2S2002–6A
	TECHNICAL MANUAL (TM 11–5023).		
	TECHNICAL MANUAL (TM 11–5506).		
	ANTENNA AS–412/FRC–6: gnd plane	Transmitting and receiving.	2A264–412
	RADIO SET CONTROL C–560B/FRC–6, to control Radio Sets AN/FRC–6 and AN/FRC–6A.	Remote control	2C684–560B
	CONSOLE C–559B/FRC–6, to control Radio Sets AN/FRC–6 and AN/FRC–6A.	Radio set control	2C684–559B
	POWER SUPPLY PP–420B/FRC–6, electronic rect type; 600 v DC, 170 ma output; 110 v AC, 3 amp input.	Plate and filament voltage supply.	3H4497–420B
	POWER SUPPLY PP–421B/FRC–6, electronic type; output 280 v, 6 ma DC and 6.3 v AC; input 110 v AC, 1.1 amp, 60 cyc.	Plate and filament voltage supply.	3H4497–421A
	RACK MT–785/FRC–6A, for mtg components	For mounting components	2Z7383–785
	RADIO RECEIVER R–368/FRC–6A, FM; 30–40 mc	For communication	2C4180–368
	RADIO TRANSMITTER T–264/FRC–6A, FM; 30–40 mc; output 50 w.	For communication	2C6900–264
	METER, ammeter: DC; 0–50/100/250/500/1000 ma to be used to tune Radio Sets AN/FRC–6, AN/FRC–6A, and AN/VRC–2.	For tuning radio sets	3F891–29

c. Rack Mt–658A/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RACK MT–658A/FRC–6: holds components of Radio Set AN/FRC–6.	Holds radio set components	2Z7383–658A
	TECHNICAL MANUAL (TM 11–5506).		
	RADIO FREQUENCY CABLE RG–8A/U, coax; 52-ohm impedance, 29.5 uuf/ft.	Antenna connecting cable	1F425–8A
Fig. 10	CONNECTOR, adapter: Adapter UG–146/U; male 1 end, female other end; both cont round; straight type; adapts Radio Frequency Jack UG–22/U or equal to Plug PL–259–A.	Antenna cable connector	2Z308–146
Fig. 10	CONNECTOR, adapter: double ended male; single round cont ea end; straight type; mates w/Radio Frequency Jack UG–22B/U 1 end, ⅞″ diam gas filled line other end.	Antenna cable jack	2Z3022–135
J–1	CONNECTOR, plug: 4 rectangular female cont; polarizing keyway; straight type.	Power jack	2Z3065–89
J–3	CONNECTOR, plug: 6 round female cont; polarizing keyway; straight type.	Receiver jack	2Z8676.44
J–2	CONNECTOR, plug: 8 round female cont; polarizing keyway; straight type.	Control jack	2Z8678.87
P–5, P–6	CONNECTOR, plug: single round male cont; 5/32″ diam; straight type.	Speaker plugs	2Z3021–198
P–1	CONNECTOR, plug: 6 round male cont; polarizing key; straight.	Receiver plug	2Z7116.30
P–4	CONNECTOR, plug: 8 round male cont; polarizing key; straight type.	Control plug	2Z7118.6
E–4, E–5	LAMP, incandescent: 120 v, 7 w; candelabra screw base lamp.	E–4: A-c power indicator E–5: Indicates transmitter is on the air.	6Z6825.1
E–4	LIGHT, indicator: w/lens; for candelabra screw base lamp.	Pilot lamp, transmitter off	2Z5884–9

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E–5	LIGHT, indicator: w/lens; for candelabra screw base lamp.	Pilot lamp, receiver and main power on-off.	2Z5884–10
M–1, M–3	METER, ammeter: DC; 0–50 ma	M–1: Transmitter tuning meter M–3: Receiver tuning meter.	3F865–22
M–2	METER, voltmeter: AC rectifier type; 0–150 v	Line voltage meter	3F8150–136
P–2, P–3	PLUG, telephone: 3 cond	Meter plugs	2Z7228A–55B
LS–1	SPEAKER, dynamic: 6″ diam cone; PM field	Loudspeaker	6C43–32
S–2	SWITCH, toggle: SPST; JAN type ST13A	SPEAKER SWITCH	3Z9863–13A
S–1	SWITCH, toggle: DPDT; JAN type ST23N	METER REVERSAL SWITCH	3Z9863–23N

d. Rack MT–785/FRC–6A.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RACK MT–785/FRC–6A: for mtg components TECHNICAL MANUAL (TM 11–5506).	Holds radio set components	2Z7383–785
A–1	BRACKET: for mtg connectors	For mounting connectors	2Z1244–60
W–1	CABLE RF: Army-Navy Radio Frequency Cable RG–59A/U; coax; 73 ohms impedance.	Receiver antenna connector cable	1F425–59A
E–6	CONNECTOR, adapter: Army-Navy Adapter UG–146/U; male 1 end, female other end; both cont round; straight; adapts Army-Navy Radio Frequency Jack UG–22/U or equal to Sig C Plug PL–259–A.	Antenna cable connector	2Z308–146
E–7	CONNECTOR, adapter: male both ends; single round cont ea end; straight; mates w/Army-Navy Radio Frequency Jack UG–22B/U 1 end, ⅞″ diam gas filled line other end.	Antenna cable jack	2Z3022–135
W–1, W–2	CONNECTOR, plug: Army-Navy Radio Frequency Plug UG–260/U; single male cont; straight; bayonet locking type.	Part of receiver antenna connector	2Z7390–260
	CONNECTOR, plug: 4 flat female cont; straight	Power Jack	6Z3179
	CONNECTOR, plug: 6 round female cont; straight.	Receiver Jack	2Z8676.44
	CONNECTOR, plug: 6 round male cont; pol; straight.	Receiver plug	2Z7116.30
	CONNECTOR, plug: 8 round female cont; pol; straight.	Control Jack	2Z8678.87
	CONNECTOR, plug: 8 round male cont; straight.	Control plug	2Z7118.6
	CONNECTOR, receptacle: 1 round female cont; coax type; straight.		2Z3062–213
E–8	LAMP, incandescent: 115 v, 6 w; double cont; bayonet base.	Indicator lamp	6ZK6931–2
E–5	LIGHT, indicator: w/green lens; for S–6 bayonet bulb.	Pilot lamp, receiver and main power on-off.	2Z5991–165
E–4	LIGHT, indicator: w/red lens; for S–6 bayonet bulb.	Pilot lamp, transmitter on-off	2Z5991–164
M–1, M–3	METER, ammeter: DC; 0–50 ma; JAN type MR36WO50DCUA.	M–1: Transmitter tuning meter M–3: Receiver tuning meter.	3F1050–46
M–2	METER, voltmeter: AC, rect type; 25–10,000 cps; range 0–150 v.	Line voltage meter	3F8150–138
LS–1	SPEAKER, dynamic: 6½″ diam cone; PM field.	Loudspeaker	6C43–42
S–1, S–3	SWITCH, toggle: DPDT; JAN type ST23N	METER REVERSAL SWITCH	3Z9863–23N
S–2	SWITCH, toggle: SPST; JAN type ST13A	SPEAKER SWITCH	3Z9863–13A
W–1	WIRING HARNESS.		

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO RECEIVER R–276A/FRC–6: FM; 30–40 mc, 1 band; input 110 v, 60 cyc, 150 w; 14½″ lg x 12½″ wd x 8½″ h; 14 tube, double conversion superheterodyne.	For communication	2C4180–276A
	TECHNICAL MANUAL (TM 11–5506)		
	BOARD, terminal: general purpose term strip; 44 solder lug term; lam phenolic board; 8¼″ lg x 1⅛″ wd x 5/64″ thk; Espey part/dwg #AA26.297.	Resistor board	3Z770–44
C–209	CAPACITOR, fixed: ceramic; 2 uuf ±.25 uuf; 500 vdcw; .460″ lg x .240″ diam; JAN type CC30CK020C.	V–202 to V–203, oscillator coupling.	3D9002–27
C–264	CAPACITOR, fixed: mica; 100 uuf ±10%; 500 vdcw; 51/64″ lg x 15/32″ wd x 7/32″ thk; JAN type CM20B101K.	V–212 audio input coupling	3K2010121
C–202	CAPACITOR, fixed: mica; 510 uuf ±5%; 500 vdcw; 51/64″ lg x 15/32″ wd x 7/32″ thk; JAN type CM20D511J.	V–201 grid return bypass	3K2051142
C–205, C–252, C–253, C–256	CAPACITOR, fixed: ceramic; 2000 uuf ±20%; var temp coef; 500 vdcw; .830″ lg x .315″ diam; radial wire leads; phenolic insulation; Central Radio Laboratory "HI-KAP."	C–205: V–202 screen bypass C–252: Bypass. C–253: V–210 audio input coupling. C–256: V–210 plate load tuning.	3DA2–204
C–203, C–204, C–212, C–218, C–219, C–257, C–258, C–259, C–262, C–263	CAPACITOR, fixed: ceramic; 5000 uuf ±20%; 500 vdcw; 1″ lg x .340″ diam; phenolic insulation; "HI-KAP" Centralab #GMV–BC32A.	C–203: V–201 cathode bypass C–204: V–201 screen bypass. C–212: V–203 oscillator plate tuning (in T–202 can). C–218: V–204 cathode bypass. C–219: V–204 screen bypass. C–257: V–210 plate load tuning. C–258: V–211 output load. C–259: V–211 output load. C–262: V–212 output coupling. C–263: V–212 input coupling.	3DA5–209
C–265	CAPACITOR, fixed: paper; 20,000 uuf ±20%; 600 vdcw; HS metal case; 1⅝″ lg x 7/16″ diam; mineral oil filled and impr; 2 axial wire leads; no int gnd connections; JAN type CP29A1EF203M.	V–213 h-f audio bypass	3DA20–164
C–225, C–228, C–231, C–232, C–238, C–244, C–251, C–254, C–260, C–261, C–267	CAPACITOR, fixed: paper; 50,000 uuf ±20%; 600 vdcw; 1½″ lg x ⅞″ diam; JAN type CP29A1EF503M.	C–225: V–205 cathode bypass C–228: V–205 screen bypass and B± filter. C–231: V–206 cathode bypass. C–232: V–206 screen bypass. C–238: V–207 screen bypass. C–244: V–208 screen bypass. C–251: V–211 squelch time constant. C–254: V–210 cathode bypass. C–260: V–212 input filter. C–261: V–212 plate filter. C–267: Power line filter.	3DA50–259
C–266	CAPACITOR, fixed: paper; 250,000 uuf ±20%; 200 vdcw; HS metal case; 2 5/16″ lg x 13/16″ diam; mineral oil filled and impr; 2 axial wire leads; JAN type CP28A1EC254M.	600-ohm line bypass	3DA250–358

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–268–A, C–268–B	CAPACITOR, fixed: electrolytic; 2 sec; 20 uf ea sec; 450 vdcw ea sec; 2¾″ lg x 1⅜″ diam; HS metal case; 3 solder lug term on bottom; all term insulated from can; JAN type CE32F200R.	B+ filters	3DB20–67
C–255–A, C–255–B, C–255–C	CAPACITOR, fixed: electrolytic; 3 sec; 20 uf ea sec; 450 vdcw ea sec; 3¾″ lg x 1⅜″ diam; HS metal can; 4 solder lug term on bottom; all term insulated from can; JAN type CE33F200R.	C–255–A: V–210 plate return and screen bypass. C–255–B: V–212 cathode bypass. C–255–C: V–213 cathode bypass.	3DB20–132
C–201	CAPACITOR, variable: air dielectric; plate meshing type; single sec; 4–54 uuf; SLC characteristic; 500 v RMS test; 1$\frac{1}{32}$″ lg x 1$\frac{15}{16}$″ wd x 1$\frac{7}{32}$″ h excluding shaft; scdr adj; 21 silver pl brass plates; 180 deg clockwise rotation; ceramic insulation; Sickles FW type #ARL–13.	Antenna trimmer	3D905AV–3
L–201	COIL, RF: antenna pri; single wnd; unshielded; 2½ turns #14 tinned copper wire; $\frac{9}{16}$″ lg x ¾″ ID; air wnd; 1 wire lead term ea end; Espey part/dwg #LA2.301.	Antenna primary	3C1084Z70–1
L–202	COIL, RF: antenna secd; single wnd; unshielded; 9 turns #21 tinned copper wire; 1½″ lg x ½″ diam; polystyrene form, air core; external tuning capacitor; 1 wire lead 2″ lg ea end; Espey part/dwg #IA2.302.	Antenna secondary	3C1084Z70–2
T–205	COIL, RF: 455 kc 1st IF; single wnd, universal wnd; shielded, rectangular aluminum can; 2″ lg x 1$\frac{9}{16}$″ wd x 4″ h; ceramic form, air core; built in tuning capacitor; scdr adj through top of can; 6 solder lug term on bottom; Espey part/dwg #ZB2.308.	V–205 plate tuning	2Z9641.277
T–201	COIL, RF: RF transformer; single wnd; shielded, rectangular aluminum can; 2″ lg x 1½″ wd x 4″ h; polystyrene form, air core; built in tuning capacitor; scdr adj through top of can; 4 solder lug term on bottom; marked T–201; Espey part/dwg #ZB2.305.	V–201 plate tuning	3C675–7
P–203	CONNECTOR, plug: single round male cont; straight type; ½″ diam x ⅜″ lg less cont; cylindrical red bakelite body; cable opening ⅛″ diam; Amphenol part #71–1L.	Filament voltage input	2Z7111.80
P–204	CONNECTOR, plug: single round male cont; straight type; ⅜″ lg less cont x ½″ diam; cylindrical yellow bakelite body; cable opening ⅛″ diam; Amphenol part #71–1L.	Filament voltage input	2Z3021–191
P–201	CONNECTOR, receptacle: 6 round radial male cont; straight; 1⅛″ lg x 1⅜″ diam; Amphenol part #79–P06M.	Power input	2Z3099
J–206, J–207	CONNECTOR, receptacle: 1 round female cont; ½″ lg x ½″ shoulder diam; cylindrical block bakelite body; Amphenol part #78–1L.	3-ohm speaker receptacle	2Z5573.4
J–203	CONNECTOR, receptacle: 1 round female cont; ½″ lg x ½″ shoulder diam; cylindrical red bakelite body; Amphenol part #78–1L.	High-voltage receptacle	2Z5573.5
J–204	CONNECTOR, receptacle: 1 round female cont; ½″ lg x ½″ shoulder diam; cylindrical yellow bakelite body; Amphenol part #78–1L.	Filament voltage receptacle	2Z5573.6

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
J–201	CONNECTOR, receptacle: single round female cont; 1 5/32″ lg x 1 1/16″ diam o/a; chrome pl brass body; Jones HB part #S–101–D.	Antenna receptacle	2Z8671.30
J–205	CONNECTOR, receptacle: 8 round radial female cont, pol; straight; 1″ lg x 1 3/8″ diam o/a; Amphenol part #79–P08F.	Control receptacle	2Z8673.13
F–201	FUSE FU–50: 3 amp; opens in 1 hr at 135%, opens in 2 min at 200%, rated continuous at 110% load; 250 v; glass body; ferrule term; nonindicating; 1 1/4″ lg x 1/4″ diam o/a; NEC std term.	Input power line fuse	3Z1950
	FUSE HOLDER: extractor post type; for one 3AG cartridge fuse; black bakelite; 15 amp, 250 v max; 1 1/16″ diam x 2″ lg o/a; 1/2″ diam threaded body for panel hole mtg; 2 solder lug term; Buss part #HKP.	Holds fuse F–201	3Z3285–2
J–202	JACK JK–34: for 2 cond plug; .25″ diam; 1 1/4″ lg x 1″ wd x 3/4″ thk; J1 cont arrangement; 3/8″ diam mtg hole.	METER jack	2Z5534
	KNOB: round; black bakelite; for 1/4″ diam shaft; molded arrow; 1 1/16″ diam x 1 3/32″ thk; ICA part #1081.	Meter switch knob	2Z5821–4.1
L–204	REACTOR: filter choke; .5 hy, 20 ma; 110 ohms DC resistance; HS metal case; 2 1/4″ h x 1 1/2″ diam; Espey part/dwg #LA16.228.	V–213 a-f choke	3C321–21
L–203	REACTOR: audio; 50 mh ±5%; 17 ma; 105 ohms DC resistance; uncased; 1 3/8″ lg x 1″ wd x 1 1/2″ h; Espey part/dwg #LA2.303.	V–210 plate load	3C323–179C
L–205	REACTOR: filter choke; 2.25 hy, 80 ma; 600 ohms DC resistance; HS metal case; 2 3/16″ diam x 2 7/8″ h; 2 ceramic lead thru term on bottom; Espey part/dwg #LA16.226.	Smoothing choke	3C321–20
R–202	RESISTOR, fixed: comp; 270 ohms ±10%; 1/2 w; .655″ lg x .249″ diam; JAN type RC21BF271K.	V–201 cathode resistor	3RC21BF271K
R–212, R–217	RESISTOR, fixed: comp; 330 ohms ±10%; 1/2 w; .655″ lg x .249″ diam; JAN type RC21BF331K.	R–212: V–204 cathode resistor. R–217: V–205 cathode resistor.	3RC21BF331K
R–223	RESISTOR, fixed: comp; 560 ohms ±10%; 1/2 w; .655″ lg x .249″ diam; JAN type RC21BF561K.	V–206 cathode resistor	3RC21BF561K
R–252	RESISTOR, fixed: comp; 1000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF102K.	V–213 cathode resistor	3RC31BF102K
R–206, R–208, R–245	RESISTOR, fixed: comp; 4700 ohms ±10%; 1/2 w; .655″ lg x .249″ diam; JAN type RC21BF472K.	R–206 and R–208: V–202 plate decoupling resistor. R–245: V–212 cathode resistor.	3RC21BF472K
R–246	RESISTOR, fixed: comp; 6800 ohms ±10%; 1/2 w; .655″ lg x .249″ diam; JAN type RC21BF682K.	V–212 bleeder and cathode resistor.	3RC21BF682K
R–213, R–243	RESISTOR, fixed: comp; 15,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF153K.	R–213: V–204 screen dropping and filter. R–243: V–210 plate decoupling.	3RC31BF153K

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–209, R–219, R–224, R–230, R–233	RESISTOR, fixed: comp; 27,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF273K.	R–209: V–203 screen dropping resistor. R–219: V–205 screen dropping and filter. R–224: V–206 screen dropping resistor. R–230: V–207 screen dropping resistor. R–233: V–208 screen dropping and plate decoupling.	3RC31BF273K
R–204, R–216	RESISTOR, fixed: comp; 47,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF473K.	R–204: V–202 screen dropping and filter. R–216: V–205 oscillator grid resistor.	3RC21BF473K
R–249	RESISTOR, fixed: comp; 47,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF473K.	V–212 bleeder and voltage dropping.	3RC31BF473K
R–203	RESISTOR, fixed: comp; 68,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF683K.	V–201 screen dropping and filter	3RC21BF683K
R–201	RESISTOR, fixed: comp; 100,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF104K.	V–201 grid resistor	3RC21BF104K
R–254	RESISTOR, fixed: comp; 100,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF104K.	Bleeder	3RC31BF104K
R–218	RESISTOR, fixed: comp; 150,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF154K.	V–205 oscillator plate decoupling.	3RC21BF154K
R–253	RESISTOR, fixed: comp; 220,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF224K.	V–212 audio input coupling	3RC21BF224K
R–244, R–250	RESISTOR, fixed: comp; 270,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF274K.	R–244: V–212 squelch plate R–250: V–212 plate load.	3RC21BF274K
R–240	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF474K.	V–210 input coupling	3RC21BF474K
R–248	RESISTOR, fixed: comp; 820,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF824K.	V–212 audio input coupling	3RC21BF824K
R–205, R–238, R–239, R–241, R–242, R–247	RESISTOR, fixed: comp; 1 meg ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF105K.	R–205: V–202 grid resistor R–238: V–207 to V–211 coupling. R–239: V–210 grid resistor. R–241: V–211 output load. R–242: V–212 input coupling. R–247: V–212 squelch voltage coupling.	3RC21BF105K
R–251	RESISTOR, fixed: comp; 2.2 meg ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF225K.	V–213 grid resistor	3RC21BF225K
X–201, X–203, X–204, X–206, X–207, X–208	SOCKET, tube: octal; under chassis plate mtg; round mica filled bakelite body; 1 1/16″ diam x 5/16″ thk; plate 1 1/16″ x 1 3/16″; cad pl copper cont; Cinch part #ER–237.	Tube sockets	2Z8678.297
X–202, X–205, X–209, X–210, X–211, X–212, X–213, X–214	SOCKET, tube: octal; under chassis plate mtg; round mica filled bakelite body; 1 1/16″ diam x 5/16″ thk; cad pl copper cont; Cinch part #51A12543.	Tube sockets	2Z8678.298

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	SOCKET SO–11: 5 cont, med; wafer mtg; oval ceramic body, 2¼″ lg x 1⅝″ wd x ¼″ thk; Natl Co part #CIR–5.	Tube socket	2Z8711
	SWITCH, rotary: single pole, 5 position; phenolic fiber base, metal body; 1¼″ diam x 7/16″ thk; locking action, normally closed; Espey part/dwg #SA12.087.	METER SWITCH	3Z9825–70.12
	TRANSFORMER, AF: plate coupling output type; 10,000 ohm pri, secd #1, 600 ohms, secd #2, 3.2 ohms; HS metal case; 2½″ h 1¾″ diam; Espey part/dwg #TA15.031.	V–213 audio output	2Z9633.63
	TRANSFORMER, discriminator: 455 kc; shielded; 2″ lg x 1 9/16″ wd x 4″ h; ceramic core; untuned pri, double tuned secd; variable air capacitor tuning; Espey part/dwg #ZB2.311.	455-kc i-f coupling V–208 to V–209.	2Z9641.280
	TRANSFORMER, IF: 4.3 mc 1st IF; 2 wnd, universal wnd; shielded, rectangular aluminum can; 2″ lg x 1 9/16″ wd x 4″ h; ceramic form, air core; 2 built in tuning capacitors; scdr adj thru top of can; 6 solder lug term on bottom; Espey part/dwg #ZB2.306.	I-f coupling V–203 to V–204	2Z9643.286
T–204	TRANSFORMER, IF: 4.3 mc 2d IF; 2 wnd, universal wnd; shielded, rectangular aluminum can; 2″ lg x 1 9/16″ wd x 4″ h; ceramic form, air core; 2 built in tuning capacitors; scdr adj thru top of can; 5 solder lug term on bottom; 1 wire lead w/grid clip on side of can; Espey part/dwg #ZB2.307.	I-f coupling V–204 to V–205	2Z9643.287
T–206	TRANSFORMER, IF: 455 kc 2d IF; 2 wnd, universal wnd; shielded, rectangular aluminum can; 2″ lg x 1 9/16″ wd x 4″ h; ceramic form, air core; 2 built in tuning capacitors; scdr adj thru top can; 8 solder lug term on bottom; Espey part/dwg #ZB2.309.	455-kc i-f coupling V–206 to V–207.	2Z9641.278
T–207	TRANSFORMER, IF: 455 kc 3d IF; 2 wnd, universal wnd; shielded, rectangular aluminum can; 2″ lg x 1 9/16″ wd x 4″ h; ceramic form, air core; 2 built in tuning cpacitors; scdr adj thru top of can; 6 solder lug term on bottom; Espey part/dwg #ZB2.310.	455-kc i-f coupling V–207 to V–208.	2Z9641.279
T–202	TRANSFORMER, RF: oscillator; 2 wnd; shielded, rectangular aluminum can; 2″ lg x 1½″ wd x 4″ h; polystyrene form, air core; built in tuning capacitor; scdr adj thru top of can; 4 solder lug term on bottom; Espey part/dwg #ZB2.304.	H-f oscillator plate tuning	3C675–8
T–210	TRANSFORMER, power: fil and plate type; input 110 v, 60 cyc, single ph; secd #1, 560 v CT at 90 ma; secd #2, 6.3 v at 4 amp; secd #3, 5 v at 2 amp; HS metal case; 5″ lg x 4″ wd x 4¾″ h; UTC part #D6848.	Power transformer	2Z9613.601
V–214	TUBE, electron: rectifier; JAN–5Y3GT	Rectifier	2J5Y3GT
V–212	TUBE, electron: dual triode; JAN–6C8G	Squelch, first a-f amplifier	2J6C8G
V–209, V–211	TUBE, electron: dual diode; JAN–6H6GT/G	V–209: Discriminator V–211: Noise rectifier.	2J6H6GT/G
V–213	TUBE, electron: pentode; JAN–6K6GT/G	Second a-f amplifier	2J6K6GT/G
V–205	TUBE, electron: convertor; JAN–6K8GT	Convertor	2J6K8GT

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
V–201, V–202, V–203, V–204, V–206, V–207, V–208, V–210	TUBE, electron: pentode; JAN–6SG7GT	V–201: R-f amplifier V–202: H-f oscillator. V–203: Mixer. V–204: I-f amplifier, 4.3 mc. V–206: I-f amplifier, 455 kc. V–207: First limiter. V–208: Second limiter. V–210: Noise amplifier.	2J6SG7GT

f. Radio Receiver R–368/FRC–6A

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO RECEIVER R–368/FRC–6A: FM; freq range 30–40 mc.	For communication	2C4180–368
	TECHNICAL MANUAL (TM 11–5506).		
	BOARD, terminal: general purpose; 68 solder lug term; 13⅞″ lg x 2¼″ wd x ⅛″ thk o/a.	Resistor-capacitor board	3Z770–68
C–209	CAPACITOR, fixed: ceramic; 2 uuf±.25 uuf; 500 vdcw; JAN type CC30CK020C.	V–202 to V–203, oscillator coupling.	3D9002–27
C–274	CAPACITOR, fixed: mica; 270 uuf±5%; 500 vdcw; JAN type CM20B271J.	R-f trap (T–201 can)	3K2027122
C–253, C–256	CAPACITOR, fixed: mica; 2200 uuf±10%; 500 vdcw; JAN type CM30B222K.	C–253: V–210 audio input coupling. C–256: V–210 plate load tuning.	3K3022221
C–203, C–204, C–205, C–212, C–218, C–252, C–257, C–258, C–259, C–262, C–263	CAPACITOR, fixed: mica; 5600 uuf±10%; 500 vdcw; JAN type CM35B562K.	C–203: V–201 cathode bypass C–204: V–201 screen bypass. C–205: V–202 screen bypass. C–212: V–203 oscillator plate tuning (in T–202 can). C–218: V–204 cathode bypass. C–252: Bypass. C–257: V–210 plate load tuning. C–258: V–211 output load. C–259: V–211 output load. C–262: V–212 output coupling. C–263: V–212 input coupling.	3K3556221
C–244, C–254, C–260, C–261	CAPACITOR, fixed: paper; 50,000 uuf±20%; 600 vdcw; JAN type CP29A1EF503M.	C–244: V–208 screen bypass C–254: V–210 cathode bypass. C–260: V–212 input filter. C–261: V–212 plate filter.	3DA50–259
C–225, C–228, C–231, C–232, C–238, C–251	CAPACITOR, fixed: paper; 3 sect; 50,000–50,000–50,000 uuf+20%−10% ea sect; 600 vdcw; JAN type CP54B5EF503V.	C–225: V–205 cathode bypass C–228: V–205 screen bypass and B+filter. C–231: V–206 cathode bypass. C–232: V–206 screen bypass. C–238: V–207 screen bypass. C–251: V–211 squelch time constant.	3DA50–279
C–266	CAPACITOR, fixed: paper; 250,000 uuf±20%; 200 vdcw; JAN type CP29A1EC254M.	600-ohm line bypass	3DA250–340
C–255–A, C–255–B, C–255–C	CAPACITOR, fixed: electrolytic; 3 sect; 20–20–20 uf; 450 vdcw; JAN type CE33F200R.	C–255–A: V–210 plate return and screen bypass. C–255–B: V–212 cathode bypass. C–255–C: V–213 cathode bypass.	3DB20–132

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–201	CAPACITOR, variable: air; plate meshing type; 42 uuf max to 5 uuf min; JAN type CT1C040.	Antenna trimmer	3D9042V–7
O–201	CLIP: xtal holder; not ins	Crystal holder	2Z2712.130
L–201	COIL, RF: ant pri; unshielded	Antenna primary	3C1084Z74–7
L–202	COIL, RF: ant secd; unshielded	Antenna secondary	3C1084Z74–6
J–203	CONNECTOR, receptacle: single round female cont; straight type.	High-voltage receptacle	2Z3062–215
J–204	CONNECTOR, receptacle: single round female cont; straight type.	Filament voltage receptacle	2Z3062–214
J–201	CONNECTOR, receptacle: single round female cont; straight type.	Antenna receptacle	2Z3062–188
J–205	CONNECTOR, receptacle: 8 round female radial cont; straight type.	Control receptacle	2Z3069–52
	CRYSTAL UNIT, quartz: 1 quartz plate; nom xtal freq 4755 kc.	H-f oscillator crystal	2X28–4755
J–202	JACK JJ–034: 2 cond plug .25″ diam	Meter jack	2Z5534
	KNOB: round; black bakelite; for ¼″ diam shaft	METER SWITCH knob	2Z5821–4.1
L–203	REACTOR: 50 mh ±5% at 1000 cyc; uncased	V–210 plate load	2C573K–1
R–202	RESISTOR, fixed: comp; 270 ohms ±10%; ½ w; JAN type RC20BF271K.	V–201 cathode resistor	3RC20BF271K
R–212, R–217	RESISTOR, fixed: comp; 330 ohms ±10%; ½ w; JAN type RC20BF331K.	R–212: V–204 cathode resistor R–217: V–205 cathode resistor	3RC20BF331K
R–223	RESISTOR, fixed: comp; 560 ohms ±10%; ½ w; JAN type RC20BF561K.	V–206 cathode resistor	3RC20BF561K
R–252	RESISTOR, fixed: comp; 1000 ohms ±10%; 1 w; JAN type RC30BF102K.	V–213 cathode resistor	3RC30BF102K
R–206, R–207, R–245	RESISTOR, fixed: comp; 4700 ohms ±10%; ½ w; JAN type RC20BF472K.	R–206 and R–208: V–202 plate decoupling. R–245: V–212 cathode resistor	3RC20BF472K
R–246	RESISTOR, fixed: comp; 6800 ohms ±10%; ½ w; JAN type RC20BF682K.	V–212 bleeder and cathode resistor.	3RC20BF682K
R–213, R–243	RESISTOR, fixed: comp; 15,000 ohms ±10%; 1 w; JAN type RC30BF153K.	R–213: V–204 screen dropping and filter. R–243: V–210 plate decoupling	3RC30BF153K
R–209, R–219, R–224, R–230, R–233	RESISTOR, fixed: comp; 27,000 ohms ±10%; 1 w; JAN type RC30BF273K.	R–209: V–203 screen dropping R–219: V–205 screen dropping and filter. R–224: V–206 screen dropping. R–230: V–207 screen dropping. R–233: V–208 screen dropping and plate decoupling.	3RC30BF273K
R–204, R–216	RESISTOR, fixed: comp; 47,000 ohms ±10%; ½ w; JAN type RC20BF473K.	R–204: V–202 screen dropping R–216: V–205 oscillator grid resistor.	3RC20BF473K
R–249	RESISTOR, fixed: comp; 47,000 ohms ±10%; 1 w; JAN type RC30BF473K.	V–212 bleeder and voltage dropping.	3RC30BF473K
R–203	RESISTOR, fixed: comp; 68,000 ohms ±10%; ½ w; JAN type RC20BF683K.	V–201 screen dropping and filter.	3RC20BF683K
R–218	RESISTOR, fixed: comp; 150,000 ohms ±10%; ½ w; JAN type RC20BF154K.	V–205 oscillator plate decoupling.	3RC20BF154K
R–253	RESISTOR, fixed: comp; 220,000 ohms ±10%; ½ w; JAN type RC20BF224K.	V–212 audio input coupling	3RC20BF224K
R–244, R–250	RESISTOR, fixed: comp; 270,000 ohms ±10%; ½ w; JAN type RC20BF274K.	R–244: V–212 squelch plate. R–250: V–212 plate load.	3RC20BF274K
R–240	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; JAN type RC20BF474K.	V–210 input coupling	3RC20BF474K
R–248	RESISTOR, fixed: comp; 820,000 ohms ±10%; ½ w; JAN type RC20BF824K.	V–212 audio input coupling	3RC20BF824K

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–205, R–238, R–239, R–241, R–242, R–247	RESISTOR, fixed: comp; 1 meg ±10%; ½ w; JAN type RC20BF105K.	R–205: V–202 grid resistor R–238: V–207 to V–211 coupling. R–239: V–210 grid resistor. R–241: V–211 output load. R–242: V–212 input coupling. R–247: V–212 squelch voltage coupling.	3RC20BF105K
R–251	RESISTOR, fixed: comp; 2.2 meg ±10%; ½ w; JAN type RC20BF225K.	V–213 grid resistor	3RC20BF225K
J–208, X–215, X–216	SOCKET SO–200: 2 cont small; above chassis mtg.	J–208: Speaker cord tips, connector block. X–215 and X–216: xtal sockets.	2Z8799–200
X–201 thru X–213	SOCKET, tube: octal; 1 piece saddle; below chassis mtg.	Tube sockets	2Z8678. 355
S–201	SWITCH, rotary: SP, 5 position; single sect	METER switch	3Z9825–55. 6
T–209	TRANSFORMER, AF: plate coupling type; pri 10,000 ohms impedance; secd #1, 600 ohms; secd #2, 3 ohms; steel case.	V–213 audio output	2Z9632. 528
T–203	TRANSFORMER, IF: 4.3 mc	I-f coupling, V–203 to V–204	2Z9643. 343
T–204	TRANSFORMER, IF: 4.3 mc	I-f coupling, V–204 to V–205	2Z9643. 344
T–205	TRANSFORMER, IF: 455 kc	V–205 plate tuning	2Z9641. 304
T–206	TRANSFORMER, IF: 455 kc	455–kc i-f coupling, V–206 to V–207.	2Z9641. 307
T–207	TRANSFORMER, IF: 455 kc	455–kc i-f coupling, V–207 to V–208.	2Z9641. 279
T–208	TRANSFORMER, IF: 455 kc	455–kc i-f coupling, V–208 to V–209.	2Z9641. 306
T–201	TRANSFORMER, RF: shielded	R-f coupling, V–201 to V–203	2Z9629–202
T–202	TRANSFORMER, RF: osc	H-f oscillator plate tuning	3C675–8
V–212	TUBE, electron: JAN–6C8G	Squelch, first a-f amplifier	2J6C8G
V–209, V–211	TUBE, electron: JAN–6H6GT	V–209: Discriminator V–211: Noise rectifier.	2J6H6GT
V–213	TUBE, electron: JAN–6K6GT	Second a-f amplifier	2J6K6GT
V–205	TUBE, electron: JAN–6K8GT	Convertor	2J6K8GT
V–201, V–202, V–203, V–204, V–206, V–207, V–208, V–210	TUBE, electron: JAN–6SG7GT	V–201: R-f amplifier V–202: H-f oscillator. V–203: Mixer. V–204: I-f amplifier, 4.3 mc. V–206: I-f amplifier, 455 kc. V–207: First limiter. V–208: Second limiter. V–210: Noise amplifier.	2J6SG7GT

g. Console C–559A/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	CONTROL, radio set: remote radio set control unit; steel cabinet, olive drab crackle finish; operates on 110 v AC, 60 cyc; 13″ wd x 12″ d x 8¾″ h o/a.	Remote control unit	2C684–599A
	TECHNICAL MANUAL (TM 11–5506).		
TS–402	BOARD, terminal: general purpose binding post strip; 4 screw term; molded bakelite; 2⅛″ lg x ⅞″ wd x 13/32″ h; Jones HB part #4–140.	Terminal block for headset cable.	3Z770–4.36

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–406	CAPACITOR, fixed: paper dielectric; 3000 uuf ±20%; 600 vdcw; HS metal case 1⅛″ lg x 7/16″ diam; JAN type CP29A1DF302M.	Coupling to V–402	3DA3–131
C–414	CAPACITOR, fixed: paper dielectric; 10,000 uuf ±20%; 600 vdcw; HS metal case; 1 5/16″ lg x ½″ diam; JAN type CP26A1DF103M.	Coupling to transmitter volume control.	3DA10–394
C–405	CAPACITOR, fixed: paper dielectric; 10,000 uuf ±20%; 600 vdcw; HS metal case; 1⅛″ lg x 7/16″ diam; JAN type CP29A1DF103M.	Screen bypass	3DA10–473
C–402, C–409, C–410, C–412	CAPACITOR, fixed: paper dielectric; 50,000 uuf ±20%; 600 vdcw; HS metal case; 1½″ lg x ⅝″ diam; JAN type CP29A1DF503M.	C–402: Coupling to receiver volume control. C–409: Coupling to V–403 input triode. C–410: Coupling to V–403 output triode. C–412: Key click filter.	3DA50–300
C–411	CAPACITOR, fixed: paper dielectric; 100,000 uuf ±20%; 200 vdcw; HS metal case; 1⅝″ lg x ⅝″ diam; JAN type CP29A1DC104M.	Tone tuning	3DA100–954
C–401	CAPACITOR, fixed: paper dielectric; 500,000 uuf +20% −10%; 200 vdcw; HS metal case; 1 13/16″ lg x 1″ wd x ¾″ h; JAN type CP53B1DC504V.	Coupling to decibel meter	3DA500–714
C–403	CAPACITOR, fixed: electrolytic; 3 sect; 20 uf ea sect; 250 vdcw ea sect; 2¼″ lg x 1⅜″ diam; JAN type CE33C200M.	Filter	3DB20–131
C–408	CAPACITOR, fixed: electrolytic; 3 sect; 20 uf ea sect; 400 vdcw ea sect; 3¼″ lg x 1⅜″ diam; JAN type CE33C200Q.	Filter	3DB20–101
C–404, C–407	CAPACITOR, fixed: electrolytic; 25 uf; 25 vdcw; 1 13/16″ lg x 1″ wd x 1 5/16″ h; aluminum can; 1 solder lug term on side; neg term gnd; JAN type CE62C250F.	C–404: Cathode bypass C–407: Filter.	3DB25–109
C–413	CAPACITOR, fixed: electrolytic; 2 sect; 30 uf ea sect; 350 vdcw ea sect; 2¾″ lg x 1⅜″ diam; HS aluminum case; 3 solder lug term on bottom, all term ins from can; JAN type CE42C300P.	Filter	3DB30–56
P–401	CONNECTOR, plug: 4 round male cont, pol; straight; 1⅜″ lg o/a x 1 1/16″ diam; round chrome pl brass body; ⅜″ diam cable opening; Amphenol part #MC4M.	Handset connector	2Z3024–19
P–402	CONNECTOR, plug: 12 rectangular cont; straight; 2″ lg x 1 1/64″ wd x 1½″ h o/a; rectangular molded phenolic body; Jones HB part #P–312–CCT.	Panel connector	2Z7122. 9
P–403	CONNECTOR, plug: 2 flat parallel male cont; straight type; 1¼″ diam x 1½″ lg excluding cont; round molded rubber body; 9/32″ diam cable opening; GE part #3092.	Power connector	2Z3022–137
J–401	CONNECTOR, receptacle: 4 round female cont; straight; 1⅛″ diam x 23/32″ lg; cylindrical chrome pl brass shell; Amphenol part #PC4F.	Handset jack	2Z8674. 1
J–402	CONNECTOR, receptacle: 12 rectangular cont; pol; straight; 1¼″ lg x 1 5/64″ wd x ½″ thk; rectangular phenolic body; Jones HB part #S–312–AB.	Panel connector	2Z7403–3

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E–404	LAMP, incandescent: Sig C Lamp LM–52; 6–8 v, .15 amp; bulb T–3–1/4 clear; 1⅛″ lg x 13/32″ diam; miniature bayonet base; C–2R fil; any position Mazda type #47.	Meter lamp	2Z5952
E–401, E–402	LIGHT, indicator: w/lens; ⅜″ diam amber lens; for miniature bayonet base bulb; open frame type; cad pl steel shell; 1 7/16″ h x 1¼″ d x 9/16″ wd o/a; Dialco part #753.	E–401: RCVR 1 indicator E–402: RCVRS 1–2 indicator.	2Z5991–146
E–403	LIGHT, indicator: w/lens; ⅜″ diam red lens; for miniature bayonet base bulb; open frame type; 1 7/16″ h x 1¼″ d x 9/16″ wd o/a; Dialco part #755.	Transmitting indicator	2Z5991–147
M–401	METER, audio level: AC, voice freq; −10 to +6 db; sq plastic plush mtg case; 2¾″ barrel diam, 1 5/16″ d behind flange excluding term, 3″ sq flange; 5000 ohms int resistance; calibrated for 3/64″ thk steel panel; self-contained; two ¼″–28 thd x ½″ lg stud term; Marion Elec Instr type #53SN (modified).	Decibel meter	3F3307.5–3
L–401	REACTOR: audio reactor; .1 hy at 0 ma; 32 ohms DC resistance; 700 v peak test; HS metal case; 1½″ sq x 2″ h; 2 ceramic leads thru term on bottom; Freed Trans part #16521.	Loudspeaker coil	3C323–6Z36
L–402, L–403	REACTOR: filter choke: 5 hy, 70 ma; 140 ohms DC resistance; 1200 v peak test; HS metal case; 1⅞″ lg x 1⅝″ wd x 3″ h; 2 ceramic leads thru term on bottom; Freed Trans part #16519.	L–402: Tone tuning L–403: Filter choke.	3C323–6Z35
O–401	RELAY, armature: cont arrangement 5C1B; cont 3 amp, 150 w AC; palladium cont .075″ diam; single wnd 6500 ohms coil, ins; solder lug term on coil and cont; 2 1/16″ lg x 1⅞″ wd x 3½″ h o/a; fast acting; Clare CP type C.	Control relay	2Z7599A–137
R–424	RESISTOR, adjustable: WW; 25,000 ohms ±5%; 60 w at 70°C; 3 slides provided; 4″ lg x 1 5/16″ diam o/a excluding term; 4 solder lug term; I–T–E type #400K.	Voltage divider	3Z6625–185
R–406	RESISTOR, fixed: comp; 100 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF101K.	Voltage divider	3RC20BF101K
R–421, R–422, R–423	RESISTOR, fixed: comp; 1000 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF102K.	Filters	3RC20BF102K
R–415, R–416, R–418	RESISTOR, fixed: comp; 100,000 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF104K.	R–415 and R–416: V–403 plate load. R–418: Voltage divider.	3RC20BF104K
R–413, R–420	RESISTOR, fixed: comp; 1 meg ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF105K.	R–413: V–402 grid coupling R–420: Key click filter.	3RC20BF105K
R–432	RESISTOR, fixed: comp; 1200 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF122K.	Microphone load	3RC20BF122K
R–419	RESISTOR, fixed: comp; 12,000 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF123K.	V–403 grid leak	3RC20BF123K
R–402	RESISTOR, fixed: comp; 150 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF151K.	Voltage divider	3RC20BF151K

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–407, R–426	RESISTOR, fixed: comp; 220 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF221K.	Dummy load for line	3RC20BF221K
R–409	RESISTOR, fixed: comp; 2700 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF272K.	V–401 cathode bias	3RC20BF272K
R–408, R–410, R–412	RESISTOR, fixed: comp; 3.5 meg ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF335K.	R–408: V–401 grid coupling R–410: V–401 screen dropping R–412: Voltage divider.	3RC20BF335K
R–430, R–431	RESISTOR, fixed: comp; 47 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF470K.	R–430: Voltage divider for handset volume control. R–431: Load for audio output.	3RC20BF470K
R–411	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF474K.	V–401 plate load	3RC20BF474K
R–417	RESISTOR, fixed: comp; 5,600 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF562K.	V–403 cathode bias	3RC20BF562K
R–425	RESISTOR, fixed: comp; 68,000 ohms ±10%; ½ w; .468″ lg x .249″ diam; JAN type RC20BF683K.	Filter	3RC20BF683K
R–414	RESISTOR, fixed: comp; 390 ohms ±10%; 1 w; .750″ lg x .280″ diam; JAN type RC30BF391K.	V–402 cathode bias	3RC30BF391K
R–401	RESISTOR, fixed: comp; 56,000 ohms ±10%; 1 w; .750″ lg x .280″ diam; JAN type RC30BF563K.	Bleeder	3RC30BF563K
R–429	RESISTOR, variable: WW; 75 ohms ±10%; 2 w; 1.28″ diam x .62″ d; shaft 2½″ lg x ¼″ diam; JAN type RA20A1FK750AK.	Handset volume control	3RA3301
R–403, R–404, R–405	RESISTOR, variable (potentiometer): comp; 1 meg ±20%; 1 w rating at 70° C ambient; 3 solder lug term; metal case 1 1/16″ diam x 9/16″ thk; encl case; flatted metal shaft .250″ diam x ⅞″ lg from mtg surface; clockwise log taper; cont arm ins, no off position; normal torque; ⅜″ thd x ⅜″ lg bushing, nonturn device on 1 7/32″ rad at 9 o'clock; no sw; AB part #JA1052 (modified).	R–403: Transmitting volume control. R–404: Receiving volume control. R–405: Tone volume control.	3Z7499–1.97
R–427	RESISTOR, variable (potentiometer): WW; 6 ohms ±10%; 2 w at 40° C; 3 solder lug term; encl metal case 1.28″ diam x .62″ d; slatted metal shaft ½″ lg x ¼″ diam; JAN "A" taper; cont arm ins, no off position; normal torque; mtg bushing ⅜″ –32 thd x ⅜″ lg; no sw; JAN type RA20A1SA6ROAK.	Mute volume control	3RA907
R–428	RESISTOR, variable (potentiometer): WW; front sect 15 ohms ±5%, rear sect 3 ohms ±5%; ea sect rated 2½ w at 70° C ambient; 3 solder lug term ea sect; encl metal case 1 21/32″ diam x 1 1/16″ thk; flatted metal shaft .250″ diam x ⅞″ lg from mtg surface; linear taper ea sect; cont arms ins, no off position; normal torque; ⅜″–32 thk x ⅜″ lg bushing; Clarostat series C.	Speaker volume control	3Z7015–22

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
J–404	SOCKET, crystal: 2 round female cont; straight; 1⅜″ lg x ⅝″ wd x ⅜″ h; rectangle shape; Amphenol part #33–2.	Key connector	2Z8672.31
X–401, X–402, X–403	SOCKET, tube: loctal: 1 piece saddle mtg; round bakelite body; 1¾₄″ diam x 5/16″ thk; Amphenol part #88–8X.	Tube sockets	2Z8678.33
X–404	SOCKET, tube: octal; under chassis plate mtg; two ⅛″ diam holes on 1 5/16″ mtg/c; oval, mica filled bakelite body, 1 11/16″ lg x 1 3/16″ d x 5/16″ h; copper cad pl cont; mtg plate incl; Cinch part #51A1543.	Tube socket	2Z8678.298
LS–401	SPEAKER, dynamic: 5″ diam cone; PM field; 3.5 w normal input; voice coil impedance 3–4 ohms; 5″ diam x 2 7/16″ d; Jensrad model #P5–V.	Loudspeaker	6C35–15.1
S–401	SWITCH, toggle: SPST; 3 amp at 250 v; phenolic case; body 1 1/32″ lg x 9/16″ wd x 1 9/32″ d o/a; bat handle, 11/16″ lg; locking action; 2 solder lug term; single hole mtg, bushing 15/32″–32 thd diam x ¼″ lg; JAN type ST11A.	Power switch	3Z9863–11A
S–404	SWITCH, toggle; SPST; 2 amp at 250 v; phenolic case; body 1 1/32″ lg x 2 3/32″ wd x 3 1/32″ d o/a; bat handle 11/16″ lg; locking action; 2 solder lug term; single hole mtg, bushing 15/32″–32 thd diam x 15/32″ lg; JAN type ST12C.	Tone keying	3Z9863–12C
S–402, S–403	SWITCH, toggle: DPST; 3 amp, 250 v; bakelite body; 1 1/32″ lg x 2 3/32″ wd x 2 3/32″ d; bat handle 1 1/16″ lg; locking action; 6 solder lug term; JAN type ST23N.	S–402: Mute switch S–403: Receiver selecting	3Z9863–23N
T–401	TRANSFORMER, AF: plate coupling type; pri 5000 ohms impedance, 50 ma max DC; secd #1, 600 ohms impedance, secd #2, 3 ohms impedance; HS metal case, iron core; 2¼″ lg x 2⅛″ wd x 4″ h; 3.5 w operating level; turns ratio pri to secd #1, 2.9–1, pri to secd #2, 41–1; freq response 100–5000 cyc; 6 ceramic lead thru term on bottom; Freed Trans part #16520.	Output transformer	2Z9632.500
T–402	TRANSFORMER, power: step-up and step-down, fil and plate type; input 110 v, 60 cyc. 1 ph; 3 output wnd; secd #1, 5 v at 2 amp, secd #2, 6.3 v at 1.75 amp, secd #3, 265 v at 70 ma CT; HS metal case; 3⅜″ lg x 3⅛″ wd x 4¼″ h excluding term; 9 ceramic lead thru term on bottom; Freed Trans part #16518–A.	Power transformer	2Z9613.600
V–404	TUBE, electron: rectifier; JAN–5Y3GT	Rectifier	2J5Y3GT
V–402	TUBE, electron: beam power pentode; JAN–7C5	Second a-f amplifier	2J7C5
V–401	TUBE, electron: pentode; JAN–7C7	First a-f amplifier	2J7C7
V–403	TUBE, electron: dual triode; JAN–7F7	Tone oscillator	2J7F7

h. Radio Transmitter T–215A/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	TRANSMITTER, radio: FM; 30–40 mc; output 50 w; input 110 v AC, 60 cyc, 1 ph, 325 w; 14½″ lg x 12½″ wd x 9½″ h; xtal controlled; supplied w/output coil covering 32.8–35.5 mc; change coil for other freq.	For communication	2C6900–215A
	TECHNICAL MANUAL (TM 11–5506).		
	BOARD, terminal: general purpose term strip; 42 solder lug term; lam phenolic board; 7⅞″ lg x 1 1/16″ wd x 5/64″ thk; Espey part/dwg #AA26.268.	Input and output terminal connections.	3Z770–42.5
C–102	CAPACITOR, fixed: mica; 24 uuf ±5%; 500 vdcw; 51/64″ lg x 15/32″ wd x 7/32″ thk; JAN type CM20B240J.	V–101 plate tuning	3K2024022
C–101, C–126, C–131, C–132	CAPACITOR, fixed: ceramic dielectric; 5000 uuf ±20%; 500 vdcw; 1″ lg x .340″ diam; phenolic ins; Central Radio Laboratory "HI–KAP" #GMV–BC32A.	C–101: meter bypass C–126: V–106 screen bypass. C–131: V–107 cathode bypass. C–132: V–108 cathode bypass.	3DA5–209
C–135	CAPACITOR, fixed: mica; 10,000 uuf ±10%; 2500 vdcw; 1 25/32″ lg x 1 11/32″ wd ¾″ thk; JAN type CM61B103K.	Antenna coupling	3K6110321
C–110, C–111, C–130	CAPACITOR, fixed: paper; 50,000 uuf ±20%; 600 vdcw; 1½″ lg x ⅝″ diam; JAN type CP29A1EF503M.	C–110: Decoupling bypass V–102, V–103 grids No. 2. C–111: Decoupling bypass V–102, V–103 screens. C–130: Filter.	3DA50–259
C–140, C–141	CAPACITOR, fixed: paper; 2 uf +40% −15%; 1000 vdcw; HS metal case; 4½″ lg x 1½″ diam excluding term; 2 lug term on bottom; no int gnd connections; JAN type CP41B1DG205X.	C–140: Antenna coupling C–141: Filter.	3DB2–219
C–142, C–143	CAPACITOR, fixed: paper; 2 uf +40% −15%; 1000 vdcw; HS metal case; 1 13/16″ lg x 1 1/16″ wd x 3⅞″ h excluding term; JAN type CP70E1DG205X.	Filters	3DB2–220
C–109	CAPACITOR, fixed: electrolytic; 2 sect; 50 uf ea sect; 150 vdcw; 1″ diam x 3″ lg; HS metal can; Pyramid Elec Co #TM–D–50150S.	Filter	3DB50–30
C–144	CAPACITOR, fixed: electrolytic; 1000 uf; 15 vdcw; 2¾″ lg x 1⅜″ diam; both term ins from can; JAN type CE41C102E.	Filter	3DB1000–22
C–116, C–121, C–136, C–137, C–138, C–139	CAPACITOR, fixed: mica; 2000 uuf ±5%; 500 vdcw; 53/64″ lg x 53/64″ wd x 9/32″ thk; bakelite case; JAN type CM30B202J.	C–116: V–104 screen decoupling. C–121: V–105 screen decoupling. C–136: V–107 and V–108 screen bypasses. C–137: Meter bypass, power amplifier grid. C–138 and C–139: Tone filters.	3D3020222
C–133	CAPACITOR, variable: air dielectric; plate meshing type, single sect; 7–35 uuf; .060″ air gap; 1 1/16″ lg x 1 49/64″ wd x 1 1/16″ h excluding shaft; shaft ¼″ diam x ½″ lg; bushing ⅜″–32 x 7/16″ lg; scdr adj; 11 cad pl brass plates; 360 deg rotation both directions; ceramic ins; Bud Rad part #MC–1880–25–2LS.	V–107 and V–108 plate tuning	3D9035V–22

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–134	CAPACITOR, variable: air dielectric; plate meshing type, single sect; 8–170 uuf; .024″ air gap; 1¾″ lg x 1 1/16″ sq excluding shaft; shaft ¼″ diam x ½″ lg; bushing ⅜″–32 x 7/16″ lg; scdr adj; 23 cad pl brass plates; 360 deg rotation both directions; ceramic ins; Bud Rad part #20032.	V–107 and V–108 load tuning	3D9170V–3
L–106	COIL, RF: ant tuning; 1 wnd, single layer wnd; unshielded; 9 turns #11 AWG tinned copper wire; 1⅞″ lg x 1″ diam; self-supporting, air core; ext tuning capacitor; 1 lead term ea end; Espey part/dwg #LA2.298.	Power amplifier tank	3C1084Z70
L	COIL, RF: plate tank; single wnd; unshielded; 5 turns #11 AWG HD solid copper wire, tinned; spaced 5/32″ apart per turn; approx ⅞″ lg x 1 3/16″ OD o/a; air wnd; ends of wire terminate in leads for soldering; Galvin part/dwg #24A82005.	Power amplifier tank	2C6675–50BW/C4
L	COIL, RF: plate tank; single wnd; unshielded; 6 turns #11 AWG HD solid copper wire, tinned; 15/16″ lg x 1 3/16″ OD o/a; air wnd; ends of wire terminate in leads for soldering; Galvin part/dwg #24K82006.	Power amplifier tank	2C6675–50BW/C3
L	COIL, RF: plate tank; single wnd; unshielded; 7 turns #11 AWG HD solid copper wire, tinned; 1¼″ lg x 1⅛″ OD o/a; air wnd; ends of wire terminate in leads for soldering; Galvin part/dwg #24K82007.	Power amplifier tank	2C6675–50D/C3
L	COIL, RF: plate tank; single wnd; unshielded; 8 turns #11 AWG HD solid copper wire, tinned; 1⅞″ lg x 1 3/16″ OD o/a; air wnd; ends of wire terminate in leads for soldering; Galvin part/dwg #24K82008.	Power amplifier tank	2C6675–25V/C3
L–107, L–108	COIL, RF: choke; 3 pie, universal wnd; unshielded; .09 mh at 30 mc, 150 ma, 3 ohms DC resistance; 29/32″ lg x ½″ diam; phenolic form; Espey part/dwg #LA2.299.	L–107: R-f choke, power amplifier grids. L–108: R-f choke, power amplifier plates.	3C362–19
T–105	COIL, RF: doubler plate; single wnd; shielded, rectangular aluminum can; 2″ lg x 1 7/16″ wd x 4″ h; phenolic form, air core; built-in trimmer capacitor; 5 solder lug term on bottom; Espey part #ZB2.297.	Doubler transformer	2C6675–50BW/C9
T–103	COIL, RF: 1st quadrupler plate; single wnd; shielded, rectangualr aluminum can; 2″ lg x 1 7/16″ wd x 4″ h; phenolic form, air core; built-in trimmer capacitor; scdr adj thru top of can; 5 solder lug term on bottom; Espey part #ZB2.295.	First quadrupler transformer	3C1081–31A
T–104	COIL, RF: 2d quadrupler plate; single wnd; shielded, rectangular aluminum can; 2″ lg x 1 7/16″ wd x 4″ h; phenolic form; air core; built-in trimmer capacitor; scdr adj thru top of can; 5 solder lug term on bottom; Espey part #ZB2.296.	Second quadrupler transformer	3C1081–31B
T–102	COIL, RF: mod plate tank; single wnd; shielded, rectangular aluminum can; 2″ lg x 1 7/16″ wd x 4″ h; phenolic form, air core; built-in trimmer capacitor; scdr adj thru top of can; 5 solder lug term on bottom; Espey part #ZB2.294.	Modulator transformer	2C6675–50BW/C6

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
T–101	COIL, RF: osc; single wnd; shielded, rectangular aluminum can; 2″ lg x 1 7/16″ wd x 4″ h; phenolic form, air core; built-in trimmer capacitor; scdr adj thru top of can; 9 solder lug term on bottom; Espey part #ZB2.293.	First quadrupler transformer	2C6675–50BW/C5
P–101	CONNECTOR, receptacle: 4 flat male cont, pol; straight; 1⅜″ lg o/a x 1⅜″ diam less cont; 125 v, 15 amp; chrome pl brass cylindrical body; bakelite insert; Amphenol part #92C1.	Power socket	2Z7114.27
P–102	CONNECTOR, receptacle: 8 round radial male cont, pol; straight; 2 9/32″ lg less cont x 1 7/64″ diam; chrome pl brass body; bakelite insert; Amphenol part #PO8M.	Control socket	2Z7118.13
J–104, J–105	CONNECTOR, receptacle: single round female cont; 1 5/32″ lg x 1 1/16″ diam o/a; chrome pl brass body; Jones HB part #S–101–D.	J–104: Receiver antenna jack J–105: Antenna jack.	2Z8671.30
J–102	CONNECTOR, receptacle: 4 flat radial female cont, pol; straight; 2 3/32″ lg x 1⅛″ diam o/a; nickel pl brass shell; bakelite insert; Amphenol part #PC4F.	Microphone jack	2Z8674.1
J–101	CONNECTOR, receptacle: 6 round radial female cont, pol; straight; 1 1/32″ lg x ½″ diam o/a; chrome pl metal shell; bakelite insert; Amphenol part #PO6FS.	Receiver jack	2Z8676.26
F–101	FUSE, cartridge: 5 amp; opens in 1 hr at 135%, opens in 2 min at 200%, rated continuous at 110% load; 25 v; glass body; 1¼″ lg x 9/32″ diam o/a; Littelfuse part #4AG.	Power line fuse	3Z2605.25
	HOLDER, fuse: extractor post type; for one 4AG cartridge fuse; 18 amp, 250 v max; 1 1/16″ diam max x 2″ lg o/a; ⅝″ diam threaded body for panel hole mtg; Buss part #HCM.	Power line fuse holder	3Z1939.1
	INSULATOR, standoff: sq pillar shape; white, grade 3 steatite, glazed; .750″ lg; ⅜″ sq, one #6–32 thd x ¼″ d mtg hole ea end; JAN type NS3W1006.	Terminal board stand-off insulators.	3G3510–06
J–103	JACK JK–34: for 2 cond plug .250″ diam; 1¼″ lg x 1″ wd x ¾″ thk; J1 cont arrangement.	Meter jack	2Z5534
	KNOB: round; black bakelite; for ¼″ diam shaft; molded arrow; ½″ diam x ½″ thk; Insuline part #1081.		
L–109	REACTOR: filter choke; 2.5 hy at 280 ma; 43 ohms DC resistance; HS metal case; 2¼″ h x 1½″ diam; Espey part #LA16.227.	Filter choke	3C321–22
CR–101	RECTIFIER, metallic: selenium; input 9 v AC, 60 cyc, 1 ph; output 6 v DC, 1.4 amp; rectangular, 3⅜″ sq x 1⅞″ thk; Espey part/dwg #31.021.	Rectifier	3H4956–49
O–101, O–102, O–103	RELAY, armature: DPDT; 15 amp cont; 6 v DC, 15 ohm coil; 1⅞″ lg x 1⅝″ h x 1 13/32″ wd; Allied Cont part #B06D29.	O–101: Power relay "A." O–102: Power relay "B." O–103: Antenna relay.	2Z7588–112
R–125, R–126	RESISTOR, fixed: WW; .51 ohm ±5%; ½ w; 2 1/32″ lg x 15/64″ diam; JAN type RU3BR51J.	R–125: V–106 screen dropping R–126: Cathode bias	3RUD3601
R–132	RESISTOR, fixed: comp; 18 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF–180K.	Meter shunt, power amplifier	3RC21BF180K

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–141	RESISTOR, fixed: WW; 20 ohms ±5%; 8 w, for continuous operation at 275° C; 1″ lg x 19/32″ diam; 2 radial solder lug term; approx 3/8″ lg x 1/4″ wd x .016″ thk; JAN type RW30G200.	Voltage divider	3RW14102
R–108	RESISTOR, fixed: comp; 330 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF-331K.	Cathode bias modulator	3RC31BF331K
R–139	RESISTOR, fixed: comp; 470 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF-471K.	Filter	3RC21BF471K
R–102, R–113, R–117, R–121	RESISTOR, fixed: comp; 1000 ohms ±5%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF102J.	R–102: Meter shunt oscillator R–113: Plate decoupling, modulators. R–117: V–104 plate decoupling. R–121: V–105 plate coupling.	3RC21BF102J
R–133, R–134	RESISTOR, fixed: WW; 2500 ohms ±5%; 18 w; 3″ lg x 19/32″ diam; 2 radial solder lug term; JAN type RW33G252.	Filters	3RW26752
R–103	RESISTOR, fixed: comp; 4700 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF472K.	Decoupling	3RC21BF472K
R–128, R–129, R–130, R–131	RESISTOR, fixed: comp; 4700 ohms ±10%; 2 w; 1.78″ lg x .405″ diam; JAN type RC41BF472K.	Screen dropping, power amplifier.	3RC41BF472K
R–135, R–138	RESISTOR, fixed: comp; 22,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF223K.	Tone filters	3RC21BF223K
R–127	RESISTOR, fixed: comp; 22,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF223K	Grid coupling, power amplifier	3RC31BF223K
R–140	RESISTOR, fixed: comp; 27,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF273K.	Bleeder	3RC21BF273K
R–111, R–112	RESISTOR, fixed: comp; 33,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF333K.	Screen dropping, modulators	3RC21BF333K
R–109, R–110	RESISTOR, fixed: comp; 100,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF104K.	Grid 2 dropping, modulators	3RC21BF104K
R–116, R–120	RESISTOR, fixed: comp; 150,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF154K.	R–116: V–104 screen dropping R–120: V–105 screen dropping.	3RC21BF154K
R–136, R–137	RESISTOR, fixed: comp; 220,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF224K.	R–136: V–103 grid coupling R–137: V–102 grid coupling.	3RC21BF224K
R–101	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; .655″ lg x .249″ diam; JAN type RC21BF474K.	Grid coupling to V–101	3RC21BF474K
R–142	RESISTOR, fixed: comp; 470,000 ohms ±10%; 1 w; 1.28″ lg x .310″ diam; JAN type RC31BF474K.	Bleeder	3RC31BF474K
X–111	SOCKET, tube: 5 cont, med; plate mtg; oval bakelite body; 1 7/8″ x 1 9/32″ x 9/16″ thk; Amphenol part #M1P–5.	Tube socket	2Z8665.3
X–101, X–102, X–103, X–104, X–105	SOCKET, tube: loctal; steel mtg plate; round mica filled bakelite body; 1 3/64″ diam x 19/64″ thk: Amphenol part #88–8XT.	Tube sockets	2Z8678.36

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
X–106, X–109, X–110	SOCKET, tube: octal; under chassis plate mtg; oval mica filled bakelite body; 1 11/16″ x 1 3/16″ x 5/16″ thk; Cinch part #51A12543.	Tube sockets	2Z8678.298
X–107, X–108	SOCKET SO–11: 5 cont, med; wafer mtg; oval ceramic body; 2¼″ lg x 1⅝″ wd x ¼″ thk; Natl Co. part #C1R–5.	Tube sockets	2Z8711
E–101, E–102, E–103, E–104	SUPPRESSOR, parasitic: resistor and coil; ⅝″ lg x 5/16″ diam; 4½ turns #20 AWG wire; resistor 100 ohms, ½ w; uncased; Espey part #A2.424.	Parasitic suppressors	3Z1891A–8
S–101	SWITCH, rotary: single pole 7 position; metal case; 1¼″ diam x 7/16″ thk; locking action, normally closed; Espey part/dwg #SA12.086.	Meter switch	3Z9825–70.13
T–106	TRANSFORMER, AF: microphone input; 50 ohms pri, 50,000 ohms secd; HS steel case; 2⅞″ h x 2⅛″ diam; Espey part #TA15.032.	Microphone transformer	2Z9631.335
T–107	TRANSFORMER, power: step-up, plate type; input 110 v, 60 cyc, 1 ph; secd 1320 v CT, 280 ma; HS metal case; 4″ lg x 4¾″ h x 5″ wd, excluding term; UTC part #D6849.	Plate transformer	2Z9612.260
T–108	TRANSFORMER, power: step-down, fil type; input 110 v, 60 cyc, 1 ph; secd #1, 9 v at 2 amp, secd #2, 6.3 v at 3 amp; secd #3, 5 v at 6 amp; HS metal case; 3¼″ sq x 4¼″ h excluding term; UTC part #D6847.	Power transformer	2Z9611.512
V–109, V–110	TUBE, electron: rectifier; JAN–5U4G	Rectifier	2J5U4G
V–106	TUBE, electron: beam power pent; JAN–6V6Y	Doubler	2J6V6Y
V–102, V–103	TUBE, electron: octode; JAN–7A8	Modulator	2J7A8
V–101, V–104, V–105	TUBE, electron: pent; JAN–7C7	V–101: Oscillator V–104: First quadrupler. V–105: Second quadrupler.	2J7C7
V–107, V–108	TUBE, electron: beam power pent; JAN–807	Power amplifier	2J807

i. Radio Transmitter T–264/FRC–6A.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO TRANSMITTER T–264/FRC–6A; FM; freq range 30–40 mc; output 50 w. TECHNICAL MANUAL (TM 11–5506).	For communication	2C6900–264
O–105	CAP: connector cover	Cover	2Z1607–64
C–102	CAPACITOR, fixed: mica; 24 uuf ± 5%; 500 vdcw; JAN type CM20B240J.	V–101 plate tuning	3K2024022
C–138, C–139	CAPACITOR, fixed: mica; 2000 uuf ± 5%; 500 vdcw; JAN type CM30B202J.	Tone filters	3K3020222
C–116, C–121, C–137	CAPACITOR, fixed: mica; 2200 uuf ± 10%; 500 vdcw; JAN type CM30B222K.	C–116: V–104 screen decoupling. C–121: V–105 screen decoupling. C–137: Meter bypass, power amplifier grid.	3K3022221
C–101, C–126, C–131, C–132, C–136, C–145	CAPACITOR, fixed: mica; 5600 uuf ± 10%; 500 vdcw; JAN type CM35B562K.	C–101: Meter bypass oscillator. C–126: V–106 screen bypass. C–131: V–107 cathode bypass. C–132: V–108 cathode bypass C–136: V–108 screen bypass. C–145: V–107 screen bypass.	3K3556221
C–135	CAPACITOR, fixed: mica; 10,000 uuf ± 10%; 600 vdcw; JAN type CM45B103K.	Antenna coupling	3K4510321

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–110, C–111, C–130	CAPACITOR, fixed: paper; 50,000 uuf ±10%; 600 vdcw; JAN type CP29A1EF503K.	C–110: Decoupling bypass V–102, V–103, grids 2. C–111: Decoupling bypass V–102, V–103 screens. C–130: Filter.	3DA50–315
C–140, C–141	CAPACITOR, fixed: paper; 2 uf +40% −15%; 1000 vdcw; JAN type CP41B1DG205X.	C–140: Antenna coupling C–141: Filter.	3DB2–219
C–142, C–143	CAPACITOR, fixed: paper; 2 uf +40% −15%; 1000 vdcw; JAN type CP70B1DG205X.	Filters	3DB2–232
C–109	CAPACITOR, fixed: electrolytic; 2 sec; 45 uf ea sec; 150 vdcw ea sec; JAN type CE42C450J.	Filter	3DB45–10
C–133	CAPACITOR, variable: air; plate meshing type; single sec; 5–35 uuf.	V–107 and V–108 plate tuning	3D9035V–52
C–134	CAPACITOR, variable: air; plate meshing type; single sec; 9.5–175 uuf.	V–107 and V–108 load tuning	3D9170V–3
O–103	CLIP: xtal holder	Crystal holder	2Z2712.130
L–106	COIL, RF: ant tank; 30–33 mc; unshielded	Power amplifier tank	3C1084Z74
L–106	COIL, RF: ant tank; 33–37 mc; unshielded	Power amplifier tank	3C1084Z74–1
L–106	COIL, RF: ant tank; 37–40 mc; unshielded	Power amplifier tank	3C1084Z74–2
L–107, L–108	COIL, RF: choke; unshielded	L–107: R-f choke, power amplifier grids. L–108: R-f choke, power amplifier plates.	3C1084Z74–3
J–104, J–105	CONNECTOR, receptacle: 1 round female cont; straight.	J–104: Receiver antenna jack J–105: Antenna jack.	2Z3062–188
P–101	CONNECTOR, receptacle: 4 flat male cont, pol; straight.	Power socket	2Z3024–92
J–102	CONNECTOR, receptacle: 4 round female cont, pol; straight.	Microphone jack	2Z3065–91
J–101	CONNECTOR, receptacle: 6 round female radial cont; straight.	Receiver jack	2Z3067–44
P–102	CONNECTOR, receptacle: 8 round male radial cont; straight.	Control pocket	2Z3069–51
F–101	FUSE FU–52: 5 amp	Power line fuse	3Z1952
E–105	FUSE POST FU–39: extractor type; for ¼″ lg x 9/32″ diam cartridge fuses 4AG, 4AB, and MDM.	Power line fuseholder	3Z1937
E–106, E–107	INSULATOR, standoff: round post shape; white steatite, glazed; 1½″ lg x ⅜″ diam; JAN type NS5WO112.	Terminal board stand-off	3G3501–12.1
J–103	JACK JJ–34: for cont plug .25″ diam	Meter jack	2Z5534
	KNOB: round; black bakelite; for ¼″ diam shaft	Meter switch knob	2Z5821–4.1
L–109	REACTOR: filter choke; 2.5 hy, 280 ma; 43 ohms DC; encl metal case.	Filter choke	3C573K
O–103	RELAY, armature: DPDT; 6 v DC; ins coil	Antenna relay	2Z7590–194
O–102	RELAY, armature: DPDT; 6 v DC, 15 ohms; ins coil.	Power relay	2Z7590–195
R–125, R–126	RESISTOR, fixed: WW; .51 ohms ±5%; ½ w; JAN type RU3BR51J.	R–125: V–106 screen dropping R–126: Cathode bias.	3RU03601
R–132	RESISTOR, fixed: comp; 18 ohms ±10%; ½ w; JAN type RC20BF180K.	Meter shunt, power amplifier	3RC20BF180K
R–141	RESISTOR, fixed: WW; 20 ohms ±5%; 8 w; JAN type RW30F200.	Voltage divider	3RW14126
R–108	RESISTOR, fixed: comp; 330 ohms ±10%; ½ w; JAN type RC20BF331K.	Cathode bias modulator	3RC20BF331K
R–139	RESISTOR, fixed: comp; 470 ohms ±10%; ½ w; JAN type RC20BF471K.	Filter	3RC20BF471K

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–102, R–113, R–117, R–121	RESISTOR, fixed: comp; 1000 ohms ±10%; ½ w; JAN type RC20BF102K.	R–102: Meter shunt oscillator R–113: Plate decoupling modulator. R–117: V–104 plate decoupling. R–121: V–105 plate coupling.	3RC20BF102K
R–133, R–134	RESISTOR, fixed: WW; 2500 ohms ±5%; 12 w; JAN type RW32G252.	Filters	3RW26707
R–103	RESISTOR, fixed: comp; 4700 ohms ±10%; ½ JAN type RC20BF472K.	Decoupling	3RC20BF472K
R–128, R–129, R–130, R–131	RESISTOR, fixed: comp; 4700 ohms ±10%; 2 w; JAN type RC42BF472K.	Screen dropping, power amplifier	3RC42BF472K
R–135, R–138	RESISTOR, fixed: comp; 22,000 ohms ±10%; ½ w; JAN type RC20BF223K.	Tone filters	3RC20BF223K
R–127	RESISTOR, fixed: comp; 22,000 ohms ±10%; 1 w; JAN type RC30BF223K.	Grid coupling, power amplifier	3RC30BF223K
R–140	RESISTOR, fixed: comp; 27,000 ohms ±10%; ½ w; JAN type RC20BF273K.	Bleeder	3RC20BF273K
R–111, R–112	RESISTOR, fixed: comp; 33,000 ohms ±10%; ½ w; JAN type RC20BF333K.	Screen dropping, modulators	3RC20BF333K
R–109, R–110	RESISTOR, fixed: comp; 100,000 ohms ±10% ½ w; JAN type RC20BF104K.	Grid 2 dropping, modulators	3RC20BF104K
R–116, R–120	RESISTOR, fixed: comp; 150,000 ohms ±10%; ½ w; JAN type RC20BF154–K.	R–116: V–104 screen dropping R–120: V–105 screen dropping.	3RC20BF154K
R–136, R–137	RESISTOR, fixed: comp; 220,000 ohms ±10%; ½ w; JAN type RC20BF224K.	R–136: V–103 grid coupling R–137: V–102 grid coupling.	3RC20BF224K
R–101	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; JAN type RC20BF474K.	Grid coupling to V–101	3RC20BF474K
X–111	SOCKET SO–200: 2 cont small; above chassis mtg.	Tube socket	2Z8799–200
X–107, X–108	SOCKET, tube: 5 med cont; metal plate; under chassis mtg.	Tube sockets	2Z8763.4
X–101 through X–105	SOCKET, tube: loctal; one piece saddle; above chassis mtg.	Tube sockets	2ZK8678–6
X–106	SOCKET, tube: octal; one piece saddle; below chassis mtg.	Tube socket	2Z8678.335
E–101 through E–104	SUPPRESSOR, parasitic: resistor and coil type	Parasitic suppressors	3Z1891A–10
S–101	SWITCH, rotary: single pole, 7 position	Meter switch	3Z9825–70.13
T–106	TRANSFORMER, AF: line type; pri 50 ohms impedance, secd 50,000 ohms impedance CT; HS steel case, iron core.	Microphone transformer	2Z9637.97
T–105	TRANSFORMER, RF: doubler; shielded; 30–40 mc.	Doubler transformer	2Z9629–196
T–103	TRANSFORMER, RF: first quadrupler; shielded; 3750–5000 kc.	First quadrupler transformer	2Z9629–197
T–102	TRANSFORMER, RF: mod; shielded; 937.5–1250 kc.	Modulator transformer	2Z9629–198
T–101	TRANSFORMER, RF; osc; shielded; 937.5–1250 kc.	R-f phasing transformer.	2Z9629–199
T–104	TRANSFORMER, RF: second quadrupler; shielded; 15–20 mc; double tuned.	Second quadrupler transformer	2Z9629–200
V–105	TUBE, electron: JAN–6V6GT	Second quadrupler	2J6V6GT
V–102, V–103	TUBE, electron: JAN–7A8	Modulators	2J7A8
V–101, V–104, V–105	TUBE, electron: JAN–7C7	V–101: Oscillator V–104: First quadrupler. V–105: Second quadrupler.	2J7C7
V–107, V–108	TUBE, electron: JAN–807	Power amplifiers	2J807

j. Radio Set Control C–560A/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RADIO SET CONTROL C–560A/FRC–6: operates on 110 v AC, 60 cyc; 19″ lg x 5⅜″ wd x 7 1/16″ h o/a; controls marked "LINE INPUT CONTROL," "SQUELCH," "VOLUME," and "EQUALIZER"; Harvey-Wells part/dwg #90B1150–501.	Controls radio set	2C684–560A
	TECHNICAL MANUAL (TM 11–5506).		
	BOARD, terminal: general purpose binding post strip; 24 screw term; lam phenolic board; 7 9/16″ lg x 5⅛″ wd x ⅛″ thk; Harvey-Wells part/dwg #73A1011–501.	Terminal for input and output wires.	3Z770–24.10
C–303	CAPACITOR, fixed: paper dielectric; 250,000 uuf ±20%; 200 vdcw; HS metal case; 2⅛″ lg x ¾″ diam; no int gnd connections; JAN type CP29A1DC254M.	Audio coupling	3DA250–505
C–301, C–302	CAPACITOR, fixed: paper dielectric; 2 uf +40% −15%; 200 vdcw; HS metal case; 2″ lg x 2″ wd x 1″ h; no int gnd connections; JAN type CP53B1DC205X.	C–301: Equalizer coupling C–302: Voltage divider.	3DB2–218
C–304	CAPACITOR, fixed: electrolytic; 25 uf; 25 vdcw; 1 3/16″ lg x 1″ wd x 15/16″ h; all term ins from can; JAN type CE63C250F.	Audio coupling	3DB25–79
F–301, F–302	FUSE, cartridge: 10 amp, opens in 1 hr at 135%, opens in 2 min at 200%, rated continuous at 110% load; 250 v; fiber body; ferrule term; nonindicating; 2″ lg x ½″ diam; Buss part #NON10; Fed spec W–F–803, type 1.	A-c input fuses	3Z2610.20
	FUSE HOLDER: block type; per two 9/16″ diam x 2″ lg cartridge fuses; 30 amp at 250 v max; 3½″ lg x 2⅝″ wd x 1½″ h o/a; 4 screw term; Union Porcelain Co part #388–402.	A-c input fuse holder	3Z2880–12
	KNOB; round; for ¼″ diam shaft; single #8–32 set screw; molded pointer; 1″ diam x ½″ h; Kurz-Kasch part #S–477.	Variable resistor knob	2Z5822–327
L–301	REACTOR: audio reactor; 10 mh, 125 ma; 42.5 ohms DC resistance; 700 v peak test; metal case, open on bottom; 1⅜″ sq x 1½″ h; 2 solder lug term on bottom; Bud Rad part #CH–1282.	Equalizer reactor	3C323–50G
O–301	RELAY, armature: cont arrangement 1A1C; cont 3 amp, 150 w AC; single wnd; 5500 ohms coil, ins solder lug term on coil and cont; 2 1/16″ lg x 1⅞″ wd x 3½″ h o/a; fast acting; Clare CP type #C.	Relay for use with audio coupling transformer.	2Z7599A–138
R–302	RESISTOR, fixed; WW; 50 ohms ±5%; 12 w; 2″ lg x 19/32″ diam; JAN type RW32G500.	Voltage divider	3RW16508
R–303	RESISTOR, fixed: WW; 500 ohms ±5%; 12 w; 2″ lg x 19/32″ diam; JAN type RW32G501.	Audio load	3RW22508
R–306	RESISTOR, variable (potentiometer): comp; front sect 250 ohms ±10%, rear sect 50 ohms ±10%; ea sect rated 2 w at 70°C ambient; 3 solder lug term ea sect; metal case 1 5/16″ diam x 1 3/16″ thk encl case; flatted metal shaft .250″ diam x ⅞″ lg from mtg surface; cont arms ins; no off position; ⅜″–32 thd x ⅜″ lg bushing; nonturn device on 17/32″ rad at 3 o'clock; IRC part #9840–3191.	Line input control	3Z7225–21

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–301	RESISTOR, variable (potentiometer): WW; 2500 ohms ±10%; 2 w at 40°C; 3 solder lug term; metal case 1.28″ diam x .62″ d encl case slotted metal shaft ½″ lg x ¼″ diam; JAN A taper; cont arm ins; no off position; normal torque; mtg bushing ⅜″–32 thd x ⅜″ lg; JAN type RA20A1SA252AK.	Line equalizer control	3RA6306
R–305	RESISTOR, variable (potentiometer): comp; 50,000 ohms ±10%; 2.25 w rating at 70°C ambient; 3 solder lug term; metal case 1 1/16″ diam x 9/16″ thk; flatted metal shaft .250″ diam x ⅞″ lg from mtg surface; log B taper; cont arm ins; no off position; normal torque; bushing ⅜″–32 thd x ⅜″ lg nonturn device on 17/32″ rad at 3 o'clock; AB part #JB5031.	Squelch control	3Z7450–108
R–304	RESISTOR, variable (potentiometer): comp; 500,000 ohms ±10%; 2.25 w rating at 70°C ambient; 3 solder lug term; encl metal case 1 1/16″ diam x 9/16″ thk; flatted metal shaft .250″ diam x ⅞″ lg from mtg surface; log A taper; cont arm ins; no off position; normal torque; bushing ⅜″–32 thd x ⅜″ lg, nonturn device on 17/32″ rad at 3 o'clock; AB part #JA5041.	Volume control	3Z7498–50.106
T–301	TRANSFORMER, AF: line type; primary 60 ohms impedance, 2 secd windings ea 150 ohms impedance; HS metal case, iron core; 1⅞″ lg x 1⅝″ wd x 3″ h; 1 mw operating level; turns ratio pri to ea secd 1 to 1.58; freq response 100–4000 cyc; 6 ceramic lead thru term on bottom; Freed Trans part #16527.	Audio coupling	2Z9637.93

k. Console C–559B/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	CONSOLE C–559B/FRC–6: controls Army-Navy Radio Sets AN/FRC–6 and AN/FRC–6A. TECHNICAL MANUAL (TM 11–5506).	Controls radio set	2C684–559B
	BOARD, terminal: capacitor and resistor term strip; 6 brass nickel pl screw term; 3″ lg x 11/16″ wd x ⅛″ thk.		3Z770–6.57
E–406	BOARD, terminal: general purpose; 4 brass nickel pl Bind H screw term; 2⅛″ lg x ⅞″ wd x 13/32″ h.	Capacitor board	2ZK9404.26
E–405	BOARD, terminal: general purpose; Jones HB #60; 6 brass nickel pl screw term; 2⅞″ lg x 1⅝″ wd x 3/32″ thk.		3Z770–6.52
E–408, E–409	BUSHING: strain relief bushing for power cable assem; 1 1/16″ lg x ⅝″ OD x ¼″ ID.	Strain relief bushing	2Z1409–168
W–401	CABLE, power: indoor; 2 #18 AWG stranded cond, 41 #34 AWG strands.		1B3018–2.25
W–402	CABLE, special purpose: mic; 4 #20 AWG cond, c/o 26 #34 AWG strands.		1B3020–4.6
C–406	CAPACITOR, fixed: paper; 3000 uuf ±20%; 600 vdcw; JAN type CP29A1DF302M.	Coupling to V–402	3DA3–131

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C–405, C–414	CAPACITOR, fixed: paper; 10,000 uuf ±20%; 600 vdcw; JAN type CP29A1EF103M.	C–405: Screen bypass C–414: Coupling to transmitter volume control.	3DA10–473
C–402, C–409, C–410, C–412	CAPACITOR, fixed: paper; 50,000 uuf ±20%; 600 vdcw; JAN type CP291DF503M.	C–402: Coupling to receiver volume control. C–409: Coupling to V–403 input triode. C–410: Coupling to V–403 output triode. C–412: Key click filter.	3DA50–300
C–411	CAPACITOR, fixed: paper; 100,000 uuf ±20%; 200 vdcw; JAN type CP29A2DC104M.	Tone tuning	3DA100–814
C–401	CAPACITOR, fixed: paper; 2 sec; 250,000 uuf +20% −10% ea sec; 600 vdcw ea sec; JAN type CP53B4EF254V.	Coupling to decibel meter	3DA250–415
C–407	CAPACITOR, fixed: electrolytic; 10 uf; 250 vdcw; JAN type CE63F100M.	Filter	3DB10–236
C–403	CAPACITOR, fixed: electrolytic; 3 sec; 20–20–20 uf; 250 vdcw ea sec; JAN type CE33C200M.	Filter	3DB20–131
C–408	CAPACITOR, fixed: electrolytic; 3 sec; 20–20–20 uf; 400 vdcw ea sec; JAN type CE33C200Q.	Filter	3DB20–101
C–404	CAPACITOR, fixed: electrolytic; 25 uf; 25 vdcw; JAN type CE64C250F.	Cathode bypass	3DB25–104
C–413	CAPACITOR, fixed: electrolytic; 2 sect; 30–30 uf; 350 vdcw ea sec; JAN type CE42C300P.	Filter	3DB30–56
	CONNECTOR, plug: 2 flat parallel male cont; straight.	A-c power service cord plug	6Z1727
P–402	CONNECTOR, plug: 12 rectangular male cont; straight.	Panel connector	2Z7122.9
J–401	CONNECTOR, receptacle: 4 round female pol radial cont; straight.	Handset jack	2Z3065–91
J–402	CONNECTOR, receptacle: 12 male and female cont, pol; straight.	Panel connector	2Z7403–3
HS–1	HANDSET: impedance of rec 256 ohms, impedance of xmtr 28 ohms.	For communicating	2B612–6
	HANDSET BOX: for handset connection	For handset connection	2B612–7
E–407	HANGER, handset: holder for handset	Holds handset	2Z4976–3
	KNOB: round; black bakelite; for ¼″ diam shaft.	Volume control knob	2Z5842–12
E–404, E–405, E–406	LAMP LM–52: 6–8 v, .15 amp; miniature bayonet base.		2Z5952
E–403	LIGHT, indicator: w/red faceted lens; miniature bayonet base, T–3¼″ bulb.	Transmitting indicator	2Z5991–160
E–401, E–402	LIGHT, indicator: w/yellow faceted lens; miniature bayonet base, T–3¼″ bulb.	E–401: RCVR 1 indicator E–402: RCVRS 1–2 indicator.	2Z5991–162
M–401	METER, audio level: power level type; −10 db to +6 db; JAN type MR36W123SPEC.	Decibel meter	3F3307.9–2
L–401	REACTOR: .1 hy; 32 ohms DC resistance; HS metal case.	Loudspeaker coil	3C573E–2
L–402, L–403	REACTOR: 5 hy at 70 ma; 270 ohms DC resistance; HS metal case.	L–402: Tone tuning L–403: Filter choke.	3C573E–1
	RECEIVER ELEMENT, telephone: 200 ohms impedance.		4B1109F/1
O–401	RELAY, armature: cont arrangement 3C and 4C; 6500 ohm ins coil.	Control relay	2Z7599–96
R–424	RESISTOR, adjustable: WW; 25,000 ohms ±5%; 60 w; 3 slides provided.	Voltage divider	3Z6625–185

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–430, R–431	RESISTOR, fixed: comp; 47 ohms ±10%; ½ w; JAN type RC20BF470K.	R–430: Voltage divider for handset volume control. R–431: Load for audio output.	3RC20BF470K
R–406	RESISTOR, fixed: comp; 100 ohms ±10%; ½ w; JAN type RC20BF101K.	Voltage divider	3RC20BF101K
R–402	RESISTOR, fixed: comp; 150 ohms ±10%; ½ w; JAN type RC20BF151K.	Voltage divider	3RC20BF151K
R–407, R–426	RESISTOR, fixed: comp; 220 ohms ±10%; ½ w; JAN type RC20BF221K.	R–407: Dummy load for line. R–426: Dummy load for line.	3RC20BF221K
R–414	RESISTOR, fixed: comp; 390 ohms ±10%; 1 w; JAN type RC30BF391K.	V–402 cathode bias	3RC30BF391K
R–421, R–422, R–423	RESISTOR, fixed: comp; 1000 ohms ±10%; ½ w; JAN type RC20BF102K.	Filters	3RC20BF102K
R–432	RESISTOR, fixed: comp; 1200 ohms ±10%; ½ w; JAN type RC20BF122K.	Microphone load	3RC20BF122K
R–409	RESISTOR, fixed: comp; 2700 ohms ±10%; ½ w; JAN type RC20BF272K.	V–401 cathode bias	3RC20BF272K
R–417	RESISTOR, fixed: comp; 5100 ohms ±5%; ½ w; JAN type RC20BF512J.	V–403 cathode bias	3RC20BF512J
R–419	RESISTOR, fixed: comp; 12,000 ohms ±10%; ½ w; JAN type RC20BF123K.	V–403 grid leak	3RC20BF123K
R–401	RESISTOR, fixed: comp; 56,000 ohms ±10%; 1 w; JAN type RC30BF563K.	Bleeder	3RC30BF563K
R–425	RESISTOR, fixed: comp; 68,000 ohms ±10%; ½ w; JAN type RC20BF683K.	Filter	3RC20BF683K
R–415, R–416, R–418	RESISTOR, fixed: comp; 100,000 ohms ±10%; ½ w; JAN type RC20BF104K.	R–415 and R–416: V–403 plate load. R–418: Voltage divider.	3RC20BF104K
R–411	RESISTOR, fixed: comp; 470,000 ohms ±10%; ½ w; JAN type RC20BF474K.	V–401 plate load	3RC20BF474K
R–413, R–420	RESISTOR, fixed: comp; 1 meg ±10%; ½ w; JAN type RC20BF105K.	R–413: V–402 grid coupling R–420: Key click filter.	3RC20BF105K
R–408, R–410, R–412	RESISTOR, fixed: comp; 3.3 meg ±10%; ½ w; JAN type RC20BF335K.	R–408: V–401 grid coupling R–410: V–401 screen dropping. R–412: Voltage divider.	3RC20BF335K
R–428	RESISTOR, variable (potentiometer): WW; front sect 3 ohms ±10%; rear sect 15 ohms ±10%; 2 w ea sect.	Speaker volume control	3Z7015–23
R–427	RESISTOR, variable (potentiometer): WW; 6 ohms ±10%; 2 w; JAN type RA20A1SA6ROAK.	Mute volume control	3RA907
R–429	RESISTOR, variable (potentiometer): WW; 75 ohms ±10%; 2 w; JAN type RA20A1FK750AK.	Handset volume control	3RA3301
R–403, R–404, R–405	RESISTOR, variable (potentiometer): comp; 1 meg ±20%; ½ w; JAN type RV3AUFK105D.	R–403: Transmitting volume control. R–404: Receiving volume control. R–405: Tone volume control.	3RV61009
J–404	SOCKET, crystal: 2 round female cont; above chassis mtg.	Key connector	2Z8672.78
X–401, X–402, X–403	SOCKET, tube: loctal; 1 piece saddle above chassis mtg.	Tube sockets	2ZK8678–6
J–403, X–404	SOCKET, tube: octal; 1 piece saddle, below chassis mtg.	X–404: Tube socket J–403: For monitor plug.	2Z8678.335
LS–401	SPEAKER, dynamic: cone type, 5″ diam cone; PM field.	Loudspeaker	6C43–41

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
S–402, S–403	SWITCH, toggle: DPDT; JAN type ST23N	S–402: Mute switch S–403: Receiver selecting.	3Z9863–23N
S–401	SWITCH, toggle: SPST; JAN type ST11A	Power switch	3Z9863–11A
S–404	SWITCH, toggle: SPST; JAN type ST12C	Tone keying	3Z9863–12C
T–401	TRANSFORMER, AF: plate coupling type; pri 5000 ohms at 50 ma DC; secd #1, 600 ohms, secd #2, 300 ohms; upright shielded case.	Output transformer	2Z9632.527
T–402	TRANSFORMER, power: plate and fil type; input 110 v, 60 cyc, single ph; output secd #1, 5 v at 2 amp, secd #2, 6.3 v at 1.75 amp, secd #3, 530 v at 70 ma CT; HS metal case.	Power transformer	2Z9613.626
	TRANSMITTER ELEMENT, telephone: 200 ohms impedance.		4B9860–2
V–404	TUBE, electron: JAN–5Y3GT	Rectifier	2J5Y3GT
V–402	TUBE, electron: JAN–7C5	Second a-f amplifier	2J7C5
V–401	TUBE, electron: JAN–7C7	First a-f amplifier	2J7C7
V–403	TUBE, electron: JAN–7F7	Tone oscillator	2J7F7

l. Control C–560B/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No
	RADIO SET CONTROL C–560B/FRC–6; controls Radio Sets AN/FRC–6 and AN/FRC–6A. TECHNICAL MANUAL (TM 11–5506).	Radio set control	2C684–560B
E–301	BOARD, terminal: general purpose binding post strip; 24 screw term; 7 9/16″ lg x 5 1/8″ wd x 1/8″ thk.	Wiring terminal	3Z770–24.10
C–303	CAPACITOR, fixed: paper; 250,000 uuf ±20%; 200 vdcw; JAN type CP29A1DC254M.	Audio coupling	3DA250–505
C–301, C–302	CAPACITOR, fixed: paper; 2 uf +20 −10%; 200 vdcw; JAN type CP53B1DC205V.	C–301: Equalizer coupling C–302: Voltage divider.	3DB2–140
C–304	CAPACITOR, fixed: dry electrolytic; single sect; 25 uf; 25 vdcw; JAN type CE63B250F.	Audio coupling	3DB2–140
F–301, F–302	FUSE, cartridge: 10 amp	A-c input fuses	3Z2610.22
E–302	FUSEHOLDER: block type; for 2 cartridge fuses 9/16″ diam x 2″ lg.	Holds fuse	3Z2880–18
	KNOB: round; black phenolic; for 1/4″ diam shaft.	VOLUME, SQUELCH, and LINE INPUT CONTROL.	2Z5822–357
L–301	REACTOR: audio; 10 mh at 125 ma; 42.5 ohms DC resistance; aluminum case, coil wax impr.	Equalizer reactor	3C573K–2
O–301	RELAY, armature: 2C2A cont arrangement; coil oper on 220 v DC, 3 amp 6500 ohms.	Relay, for use with audio coupling transformer.	2Z7599A–179
R–302	RESISTOR, fixed: WW; 50 ohms ±5%; 12 w at 275° C max continuous oper temp; JAN type RW32F500.	Voltage divider	3RW16523
R–303	RESISTOR, fixed: WW; 500 ohms ±5%; 12 w at 275° C max continuous oper temp; JAN type RW32F501.	Audio load	3RW22522
R–306	RESISTOR, variable: WW; 2 sect; 250 ohms ±10% front, 50 ohms ±10% rear; 2 w ea sect.	Line input control	3Z7225–23

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–301	RESISTOR, variable (potentiometer): WW; 2500 ohms ±10%; 2 w at 100° C max continuous oper temp; JAN type RA20A1SA252AK.	Line equalizer control	3RA6306
R–305	RESISTOR, variable (potentiometer): comp; 75,000 ohms ±20%; ½ W; JAN type RV3AUFK753B.	Squelch control	3RV47506
R–304	RESISTOR, variable (potentiometer): comp; 500,000 ohms ±20%; ¼ w; JAN TYPE RV3AUFK504D.	Volume control	3RV55007
T–301	TRANSFORMER, AF: line type; pri, 60 ohms impedance; secd, 2 wnd of 150 ohms ea; HS metal case.	Audio coupling	2Z9637.98

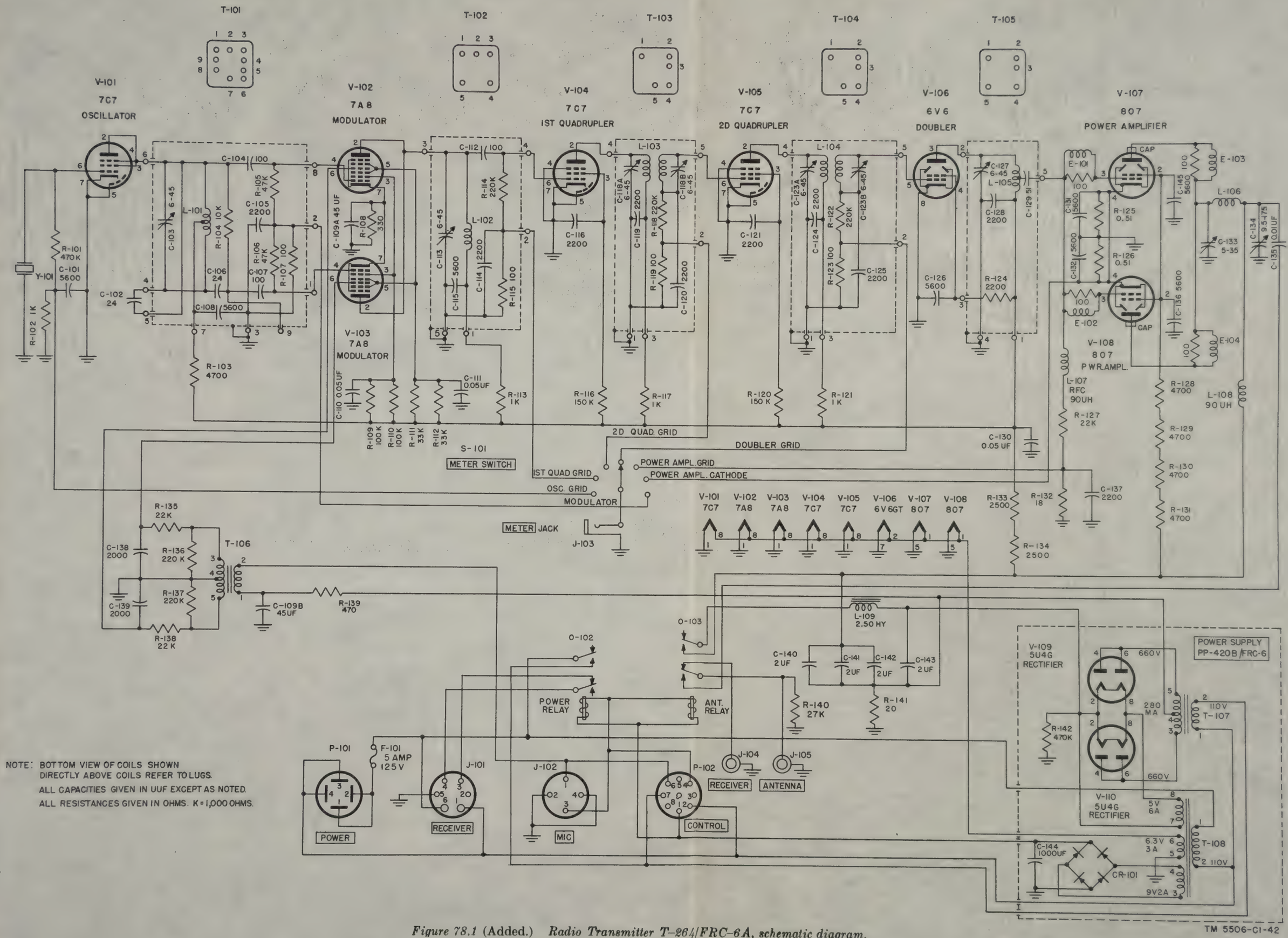
m. Power Supply PP–420B/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	POWER SUPPLY PP–420B/FRC–6: electronic rectifier type; output 600 DC, 170 ma; input 110 AC, 3 amp.	Rectifier power supply	3H4497–420B
	TECHNICAL MANUAL (TM 11–5506).		
C–144	CAPACITOR, fixed: electrolytic; single sect; 1000 uf; 15 vdcw; JAN type CE41C102E.	Filter	3DB1000–22
O–104	CLIP: vacuum tube positioner		3H961–2
CR–101	RECTIFIER, metallic: selenium; input 9 v AC, 60 cyc, 1 ph; output 6 v DC, 1.4 amp.	Metallic rectifier	3H4956–49
R–142	RESISTOR, fixed: comp; 470,000 ohms ±10%; 1 w; JAN type RC30BF474K.	Cathode dropping	3RC30BF474K
X–107, X–108	SOCKET, tube: octal; 1 piece saddle; below chassis mtg.	Tube sockets	2Z8678.335
T–108	TRANSFORMER, power: fil type; input 110 v AC, 60 cyc, single ph; secd #1, 7 v at 2 amp; secd #2, 6.3 v at 3 amp; secd #3, 5 v at 6 amp; HS metal case.	Filament transformer	2Z9611.541
T–107	TRANSFORMER, power: plate type; input 110 v AC, 60 cyc, single ph; output 1320 v CT, 280 ma; HS metal case.	Plate voltage	2Z9612.276
V–109, V–110	TUBE, electron: JAN–5U4G	Rectifier tubes	25U4G

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R–301	RESISTOR, variable (potentiometer): WW; 2500 ohms ±10%; 2 w at 100° C max continuous oper temp; JAN type RA20A1SA252AK.	Line equalizer control	3RA6306
R–305	RESISTOR, variable (potentiometer): comp; 75,000 ohms ±20%; ½ W; JAN type RV3AUFK753B.	Squelch control	3RV47506
R–304	RESISTOR, variable (potentiometer): comp; 500,000 ohms ±20%; ¼ w; JAN TYPE RV3AUFK504D.	Volume control	3RV55007
T–301	TRANSFORMER, AF: line type; pri, 60 ohms impedance; secd, 2 wnd of 150 ohms ea; HS metal case.	Audio coupling	2Z9637.98

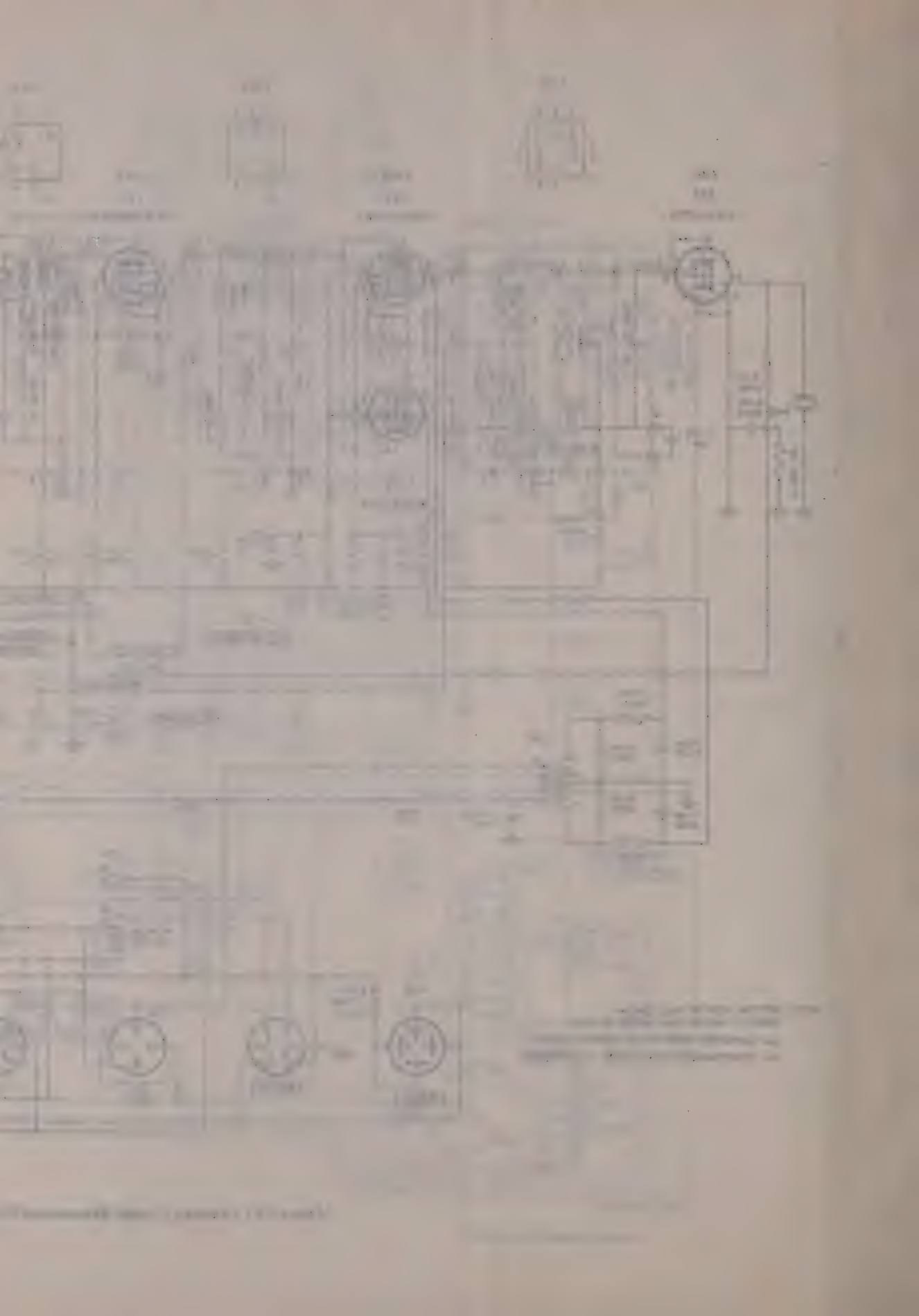
m. Power Supply PP–420B/FRC–6.

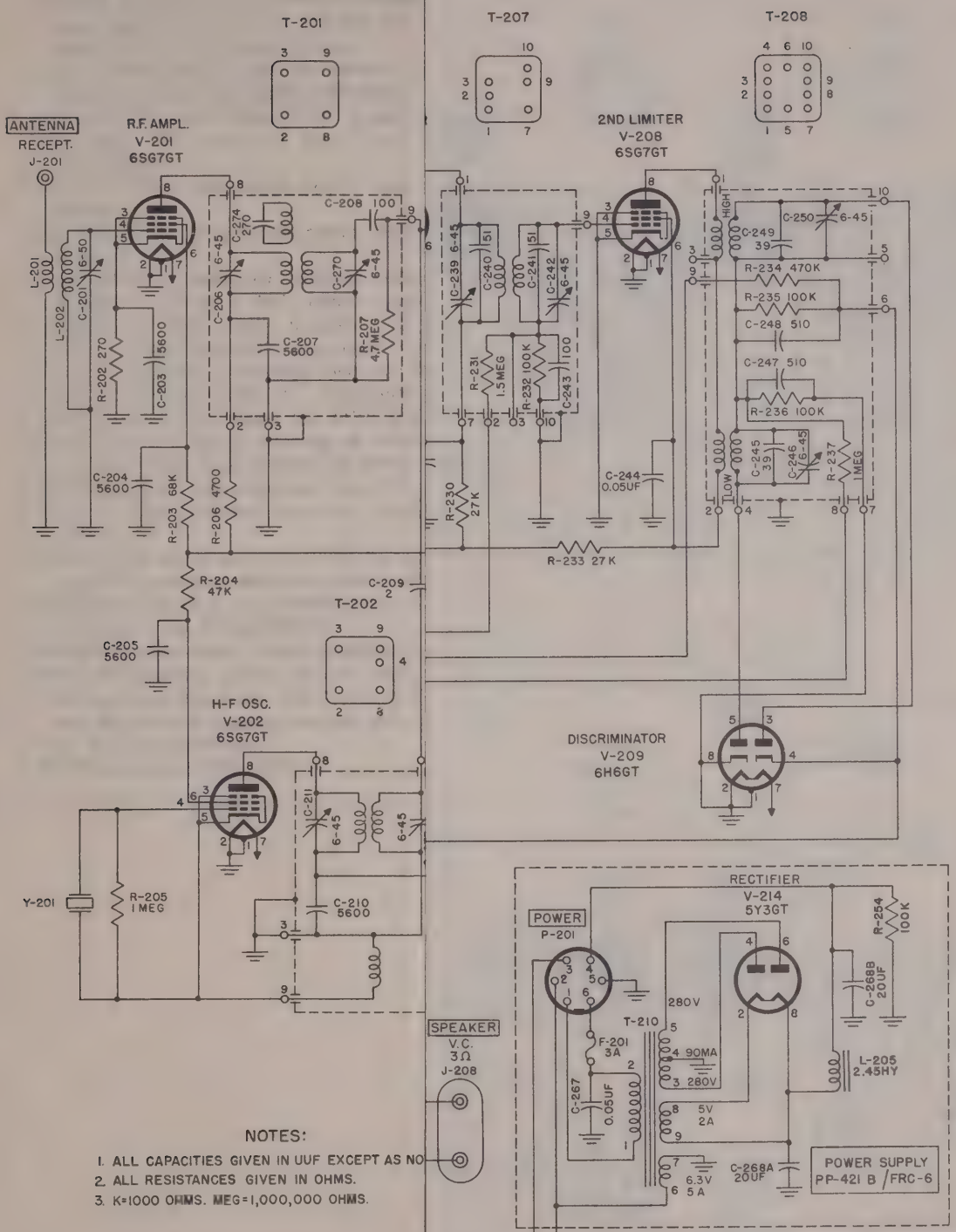
Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	POWER SUPPLY PP–420B/FRC–6: electronic rectifier type; output 600 DC, 170 ma; input 110 AC, 3 amp.	Rectifier power supply	3H4497–420B
	TECHNICAL MANUAL (TM 11–5506).		
C–144	CAPACITOR, fixed: electrolytic; single sect; 1000 uf; 15 vdcw; JAN type CE41C102E.	Filter	3DB1000–22
O–104	CLIP: vacuum tube positioner		3H961–2
CR–101	RECTIFIER, metallic: selenium; input 9 v AC, 60 cyc, 1 ph; output 6 v DC, 1.4 amp.	Metallic rectifier	3H4956–49
R–142	RESISTOR, fixed: comp; 470,000 ohms ±10%; 1 w; JAN type RC30BF474K.	Cathode dropping	3RC30BF474K
X–107, X–108	SOCKET, tube: octal; 1 piece saddle; below chassis mtg.	Tube sockets	2Z8678.335
T–108	TRANSFORMER, power: fil type; input 110 v AC, 60 cyc, single ph; secd #1, 7 v at 2 amp; secd #2, 6.3 v at 3 amp; secd #3, 5 v at 6 amp; HS metal case.	Filament transformer	2Z9611.541
T–107	TRANSFORMER, power: plate type; input 110 v AC, 60 cyc, single ph; output 1320 v CT, 280 ma; HS metal case.	Plate voltage	2Z9612.276
V–109, V–110	TUBE, electron: JAN–5U4G	Rectifier tubes	25U4G



NOTE: BOTTOM VIEW OF COILS SHOWN DIRECTLY ABOVE COILS REFER TO LUGS.
ALL CAPACITIES GIVEN IN UUF EXCEPT AS NOTED.
ALL RESISTANCES GIVEN IN OHMS. K = 1,000 OHMS.

Figure 78.1 (Added.) *Radio Transmitter T-264/FRC-6A, schematic diagram.*

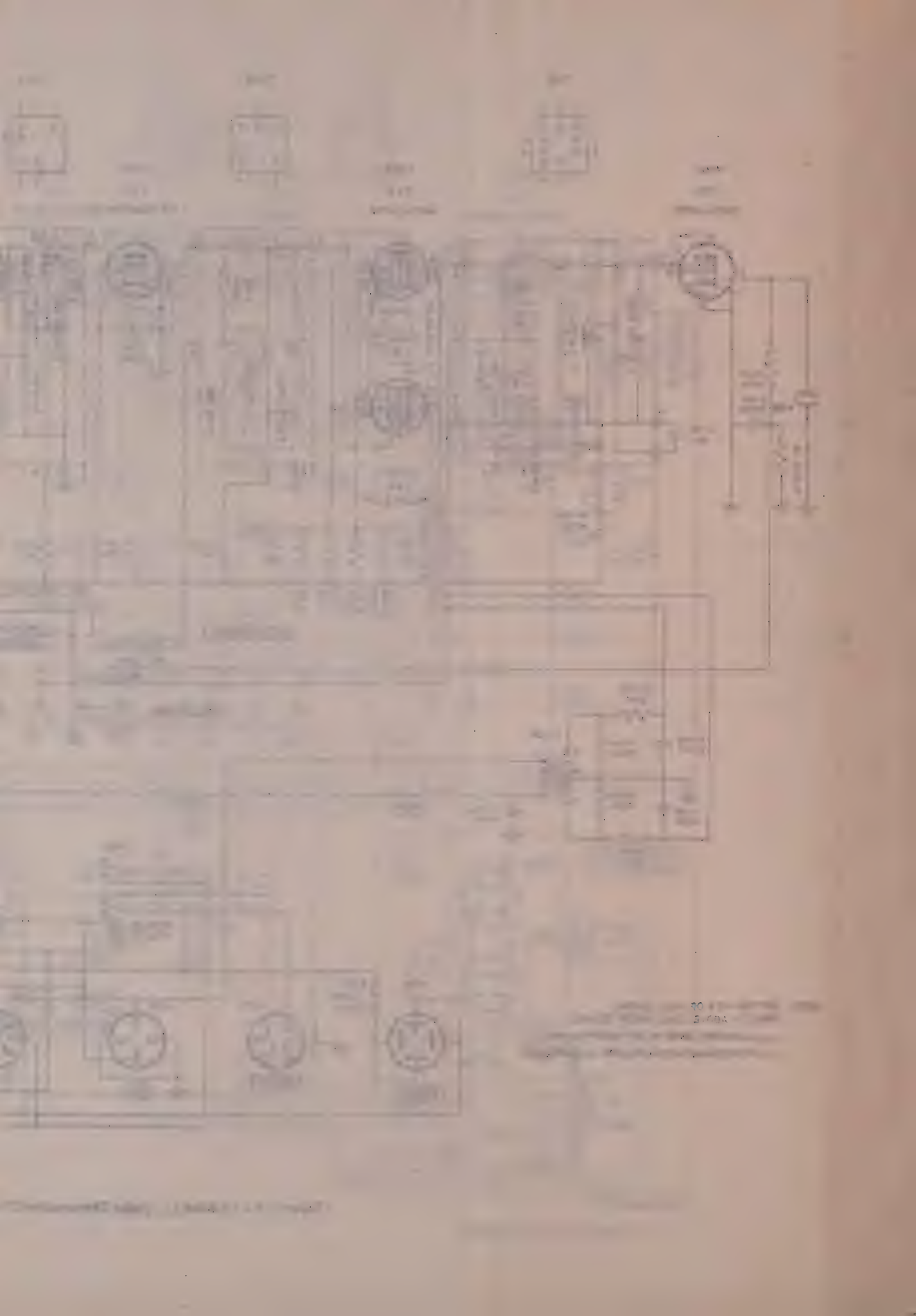


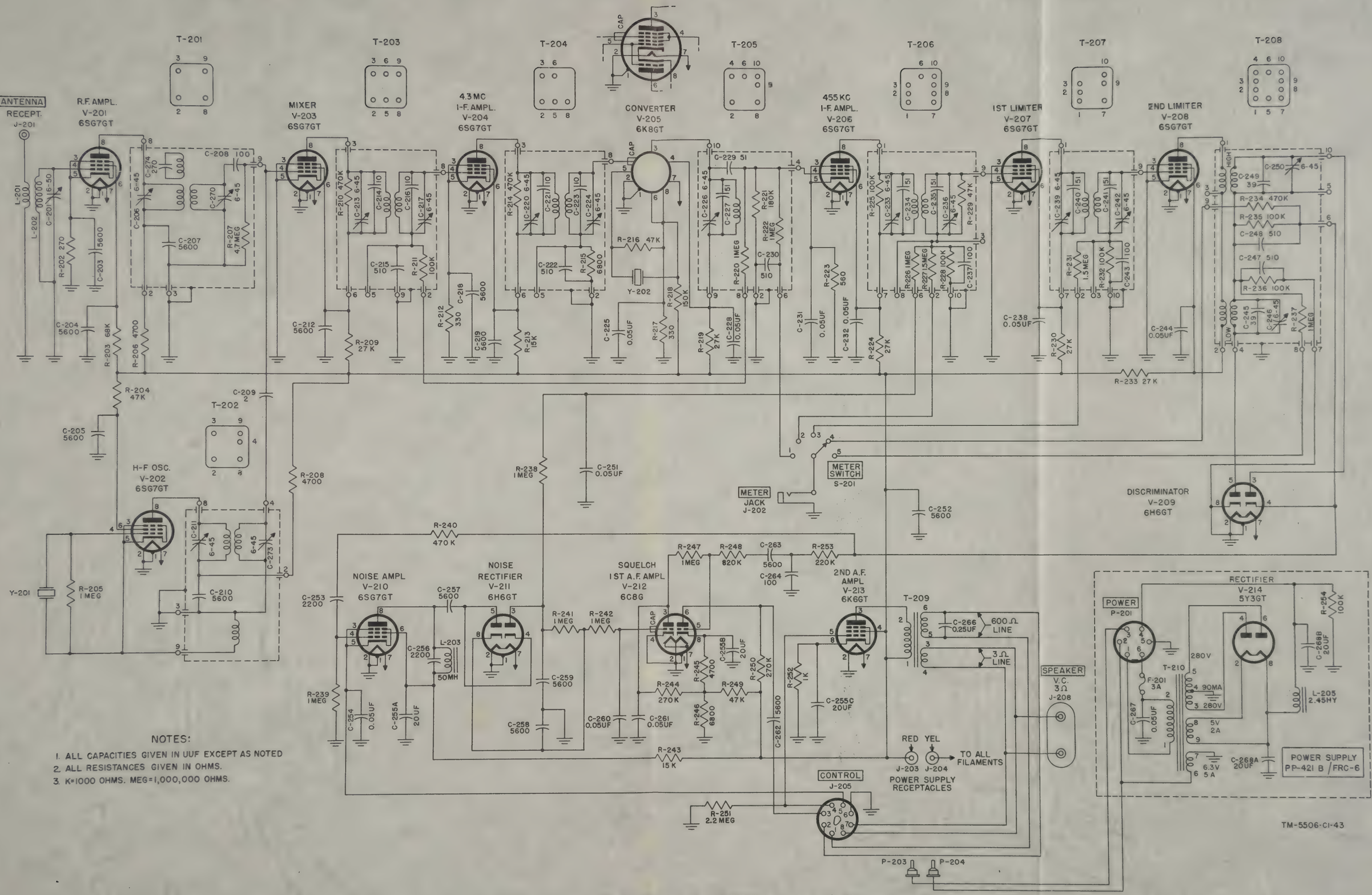


NOTES:

1. ALL CAPACITIES GIVEN IN UUF EXCEPT AS NO
2. ALL RESISTANCES GIVEN IN OHMS.
3. K=1000 OHMS. MEG=1,000,000 OHMS.

TM-5506-CI-43

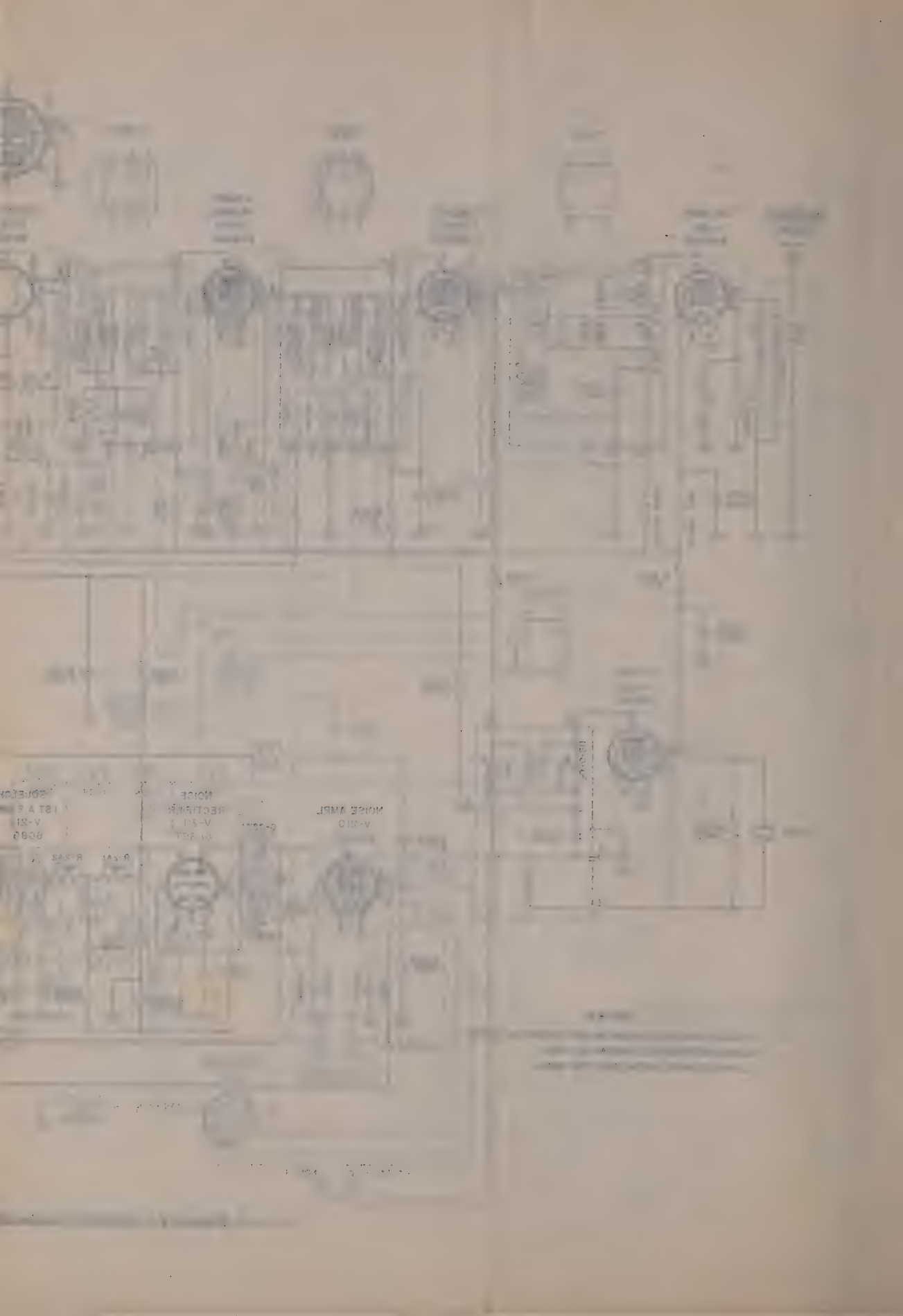




NOTES:

1. ALL CAPACITIES GIVEN IN UUF EXCEPT AS NOTED
2. ALL RESISTANCES GIVEN IN OHMS.
3. K=1000 OHMS. MEG=1,000,000 OHMS.

Figure 79.1 (Added.) *Radio Receiver R-368/FRC-6A, schematic diagram.*



n. Power Supply PP–421B/FRC–6.

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	POWER SUPPLY PP–421B/FRC–6: electronic type; output 280 v, 60 ma DC and 6.3 v AC; input 110 v AC, 1.1 amp, 60 cyc.	Rectified power supply	3H4497–421A
C–267	CAPACITOR, fixed: paper; 50,000 uuf ±20%; 600 vdcw; JAN type CP29A1EF503M.	Power line filter	3DA50–259
C–268–A, C–268–B	CAPACITOR, fixed: electrolytic; 2 sect; 20 uf ea sect; 450 vdcw ea sect; JAN type CE42F200R.	B+ filters	3DB20–67
P–203	CONNECTOR, plug: single round male cont; straight.	Filament voltage input	2Z3021–207
P–204	CONNECTOR, plug: single round male cont; straight.	Filament voltage input	2Z3021–206
P–201	CONNECTOR, receptacle: 6 round male cont; straight; 1⅛″ lg x 1⅜″ diam; cylindrical chrome pl brass shell; molded mica filled bakelite insert; for 1¼″ diam hole in panel, locked in place by threaded lock nut; Power Supply PP–421B/FRC–6; Amphenol part #79–PO6MT; Sigc Order No. 20591–PH–49.	POWER input receptacle	2Z3026–40
F–201	FUSE FU–50: 3 amp cont rating for 110% load, 0–1 hr at 135% load. 0–2 min at 200% load.	Input power line fuse	3Z1950
	FUSE POST FU–39: extractor type; for ¼″ lg x 9/32″ diam cartridge fuse 4AG, 4AB, and MDM.	Input power line fuse holder	3Z1939
L–205	REACTOR: single sect; 2.45–2.25 hy at .080 amp DC; resistance 600 ohms; HS metal case.	Filter choke	3C321–20
R–254	RESISTOR, fixed: comp; 100,000 ohms ±10%; 2 w; JAN type RC42BF104K.	Bleeder	3RC42BF104K
X–214	SOCKET, tube: octal; 1 piece saddle mtg	Tube socket	2Z8678.298
T–210	TRANSFORMER, power: fil and plate type; 110 v, 60 cyc, single ph; secd #1, 5 v at 2 amp; secd #2, 6.3 v at 5 amp; secd #3, 560 v at 90 ma CT; HS metal case.	Power transformer	2Z9613.628
V–214	TUBE, electron: JAN–5Y3GT	Rectifier tube	2J5Y3GT

Figure 80. Radio Set Control C–560A/FRC–6, schematic diagram. ***In Radio Set Control C–560B/FRC–6, R–305 is 75K.***

Figure 81. Console C–559A/FRC–6, schematic diagram. ***Bottom view of relay terminals shown is for console C–559A/FRC–6 only. See figure 81.1 for view of relay terminals for Console C–559B/FRC–6. In Console C–559B/FRC–6, R–417 is 5,100 ohms.***

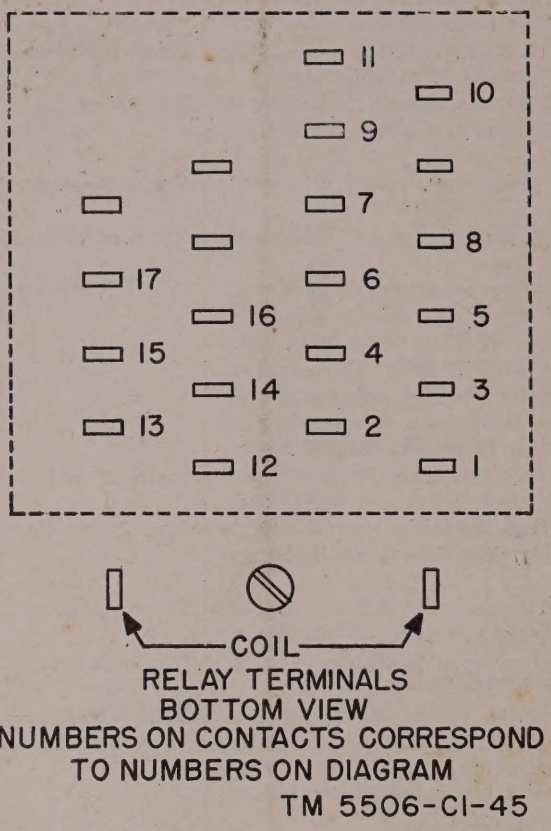


Figure 81.1 (Added.) *Console C–559B/FRC–6, detailed view of relay terminals.*

AG 300.7 (3 Jan 51)]

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